<u>The</u>

Secure (it) solutions guide



PHYSICAL and Network Security Infrastructure Solutions

Vol. 2

people. passion. expertise.

**NETWORK** 

PHYSICAL



gocsc.com



**INFRASTRUCTURE** 





#### who is CSC?

Founded in 1972, Communications Supply Corporation (CSC), a subsidiary of WESCO International, Inc. (NYSE: WCC) distributes a full range of IP infrastructure and security products and solutions. Together, CSC and WESCO form the largest electrical and data communications network in North America, with 400 full-service branches, a full suite of global distribution capabilities, and 2010 annual sales were approximately \$5.1 billion.

With vast resources at their fingertips, the CSC sales team does more than just provide product. Our tenured sales force has a passionate commitment to understanding your unique business needs and will strive every day to get you the best products, the most robust technical expertise, and the most cost-effective logistics solutions available in the data communications distribution business.



#### why CSC?

it's simple. our people, passion, and expertise.

That's why customers choose CSC. They know our team will do whatever it takes to make them successful each and every day. They value the passion we put into everything we do, and realize — when their jobs are on the line — we'll be there with the answers they need. They view us as their trusted advisor, who can help them make the transition from legacy infrastructure technologies to state-of-the-art IP solutions. It's really that simple. More and more companies turn to CSC because of our people, passion, and expertise.



#### services

CSC's distribution services help customers increase productivity and reduce costs by identifying and deploying services based on their specific project requirements. CSC offers an extensive range of services to fit your needs, including:

- 24/7 Customer Service and Support
- eBusiness Solutions
- Rapid Return Program
- Expedited Product Sourcing
- Feed-the-Job Delivery
- Project Staging
- Kitting and Labeling
- Strategic Sourcing and Supplier Selection
- Flexible Financing

- Technology Training and Education
- Custom and Consolidated Reporting
- Job Trailers
- Energy and Power Audits
- Recycling Services
- Integrated Supply
- Real-Time National Network
- Cut-to-Length Cabling Services

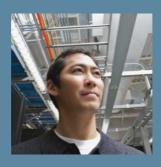


#### solutions

CSC distributes a wide range of products to support commercial, residential, and government customer applications, including:

- Network Cabling and Connectivity
- Network Cabinets and Racks
- Data Center Products and Solutions
- Networking Electronics and Wireless
- Low-Voltage Cabling
- Security Solutions
  - Sound and Paging
  - Video Surveillance
  - Notification
  - Professional Audio/Visual
  - Access Control

- Power, Cooling and Monitoring
- Power over Ethernet
- Test Equipment
- Outside Plant Solutions
- Smart Grid Solutions
- FTTx (fiber to the home or business)



people, passion,

AND expertise.

# The Secure (it) solutions guide

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# and Network Security Infrastructure Solutions









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#### It's No Secret

The dramatic evolution of technology has forever altered the global landscape. Government must now react faster and smarter, and be prepared to deal with cyber security threats to communication networks — threats that didn't even exist a decade ago.

#### **Think About This**

Even when all security protocols are in place, military networks are under constant attack. It only takes an unintentional moment of negligence or a split-second distraction for an unauthorized user to tap into an unsecured network.

That single moment can compromise military positions, placing hundreds of American lives at risk.

#### WESCO/CSC Gets It

WESCO/CSC understands that your job isn't just about getting to the next project. Our unrivaled dedication comes from a deep-seated understanding that the projects you deploy enable the critical flow of information through government infrastructures.

The WESCO/CSC Government Team consists of several members who have served in the DoD and have a proven record of success in the federal space. From concept to completion, we have the know-how to overcome government obstacles, think creatively to save time and money, and stay committed to securing our country.

Together, we have developed the Secure(it) Program.

#### Secure(it) Solutions

Secure(it) is a bundle of the industry's latest technology solutions designed to protect the integrity of the physical and network security infrastructure. It's the cornerstone of the WESCO/CSC government market approach.

Secure(it) solutions will significantly simplify network infrastructure design and ease the stress of deployment for Defense and Intelligence agency users, government contractors, and integrators.

#### **Technology Designed to Solve Problems**

WESCO/CSC has combined physical security technology with high-performing network infrastructure solutions to provide our customers with a cohesive and layered approach to security:

- A comprehensive, cost-effective means of protection against the growing threats to sensitive information and critical infrastructure
- A reduction in cost and complexity associated with the deployment of C4ISR networks and facilities

The Secure(it) program has been designed exclusively for CSC's government customers for compliance with the Information Assurance initiative, simplifying secure network deployments for the following types of projects:

- SIPRNET and JWICS
- PDS Installations
- SCIF Upgrades
- C4ISR Building Construction
- Continuity of Operations
- High Assurance Networks
- DoDIIS Trusted Workstation Deployments
- Data Center Construction

- BRAC Design/Build Projects
- OSP Network Deployments
- Secure Video Teleconference
- Joint Intelligence Operations Centers
- Red/Black Equipment Storage
- SCIF-in-a-Box

#### The Secure(it) Protection Layers

CSC developed the Secure(it) Protection Layers to address the increased integration and synergy between physical and network security.

To help customers implement a cost-effective and balanced approach to network security, the Secure(it) Layers of Protection balance the sensitivity or criticality of the information or network being protected with the risk and impact of any potential loss or compromise.

Impact	Physical Security	Network Infrastructure
Protection Layer — C4ISR Networks & Fac	ilities	
The need to protect classified information by hardening network infrastructure for maximum protection, ensures detection of any threat and maintains the integrity and availability of the system through periodic scans	Ensures Complete Isolation	Protects & Defends the Network
Protection Layer — Critical Infrastructures		
Any commercial or government critical infrastructure provider is looking for ways to: protect their SCADA/control system, ensure detection of any suspicious activity, and maintain the integrity and availability of the system through periodic scans	Provides Maximum Detection	Ensures Integrity & Availability
Protection Layer — Sensitive Information		
Everyday, any hospital, bank, university, or store handles a large volume of sensitive information	Restricts & Monitors Access	Separates & Protects Sensitive Data
Protection Layer — Enterprise Networks		
Every commercial and government network and IT manager is concerned with the exposure of their network. This protection layer focuses on preventing outsiders from being able to access their network and utilize equipment and tools to detect if an intrusion has occurred	Focuses on Detection	Minimizes Network Exposure





#### About the Solutions Guide

One of the most critical issues affecting the Information Assurance community is the lack of human capital to perform Periodic Visual Inspections (PVI) of the SIPRNET infrastructure. The only alternative is to move to more cost-effective and reliable solutions.

NSTISSI 7003 provides minimal direction about securing the network infrastructure beyond a recommendation to use hardened Protective Distribution Systems (PDS), alarmed monitoring, or legacy encryption.

WESCO/CSC understands Information Assurance and the steps necessary to comply. We have painstakingly surveyed several government end-users and have worked closely with market-leading manufacturers to develop the most comprehensive product resource of its kind — The 2011/2012 Secure(it) Solutions Guide.

- Secure(it) is the only industry resource offering the most comprehensive Information Assurance (IA)

  –approved and Department of Defense (DoD)-deployed alternatives to EMT, PDS, Periodic Visual Inspections, and slow, outdated encryption methods currently in use on military bases, campuses, and buildings worldwide
- The Secure(it) program offers products and solutions developed together with industry-leading manufacturers and, in some cases, with DoD support to provide you with customizable, high-performance solutions that exceed the needs of today's SIPRNET
- "Doing More with Less" is the mandate for Aerospace, Energy, and Defense. The Secure(it) program reduces costs by reducing complexity — all while providing the latest state-of-the-art technology

CSC and our world-class manufacturer partners are committed to thwarting today's existing and emerging network threats by adhering to a disciplined process of researching, developing, and testing new product solutions.

> For more information about the Secure(it) Program, call us at 1.800.586.3098 or visit us at **WWW.gocsc.com/secureIT**





































We Bring Security To Light™















### Your Complete Secure Network Infrastructure Solution Provider







#### **Red/Black Equipment**

- 1 Fiber Enclosures/Adapters
- 2 Copper Patch Panels/Adapters
- 3 Power over Ethernet
- 4 Infrastructure Management
- 5 Modular Pre-Terminated System

#### Fiber Optic/Copper Cable

- 6 UTP/FTP Copper
- 7 Fiber-Optic
- 8 Low-Voltage Cables
- Factory-Terminated

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Secure Products for Secure Access	Fiber Enclosures/Adapters	Copper Patch Panels/Adapters	Power over Ethernet	Infrastructure Management	Modular Pre-Terminated Systems	Fiber-Optic	UTP/FTP Copper	Low-Voltage Cables	Factory-Terminated	Keyed/Fiber and Copper Connectors	Fiber Optic Connectors	Fiber Patch Cords/Accessories	Copper Jacks/Patch Cords	PDS Raceway/Boxes	Zone Boxes/Enclosures	Surface Mount-Raceway	Red/Black Separation	Faceplates/Outlets	Lock-in/Blockout Devices	NIC Cards/SFPs	Specialty Solutions	Physical Security Solutions	Surveillance Cables/Media Converters	Cameras/Electronics	Video Equipment/Software	Infrastructure Management	Cooling Solutions	Data Center Power	UPS
Avocent®																	•									•			
AXIS® Communications																													
Belden		•			•	•	◘	•			•		•					•					•						
Berk-Tek®					•	•		•	•																				
CommScope®	•			•					•	•		•	•																
Corning	•				•	•			•	•	•	•			◘			•											
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Future Fibre Technologies™																					•								
General Dynamics C4 Systems																					•								
Holocom®														•							•								
Legrand® Ortronics		•			•								•																
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Leviton®	•	•							•	•			•																
Market Central®																					•								
Mohawk						•																							
Network Integrity Systems																					•								
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Superior Essex®						•																							
Transition Networks®			•																	•			•						
Trusted Systems																					•								
Tyco Electronics				•																	•								

Through the Secure(it) program, CSC supplies military, government and IT buyers in other industries with the most innovative and advanced products for secure network infrastructure. Ask your CSC Representative for details and complete product listings.





# **Industry-Leading Manufacturers...**























# The solutions featured on pages 8–28 include:

- High-Density Secure Solutions
- Shielded Solutions
- Flat/QuickPort/Angled/Recessed Panels
- Ultra Composite Panels and Adapters
- Plug-N-Play
- Power Over Ethernet

# 

# Red/Black Equipment Room

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www.gocsc.com/secureIT







#### Uniprise® Ready™ Line of Products

**Ready fiber shelves** are available in 1U, 2U, and 4U configurations. Holding 3-fiber panels or pre-terminated modules per 1U, Ready shelves can support up to 36 duplex LC (72 fibers) or 24 MPO pass-through adapters (288 fibers) in each 1U of space. **Ready wall mount** units are available in 2-, 4-, and 8-panel position configurations. Requiring

**Ready wall mount** units are available in 2-, 4-, and 8-panel position configurations. Requiring only 1 sq. ft. of wall space, these units support up to 48, 96, and 192 fibers or 16, 32, and 64 MPO pass-through adapters respectively. These locking wall mount units provide needed security for low-security environments.





Ready<sup>™</sup> Shelves

·		
CSC PART NO.	MFR. PART NO.	DESCRIPTION
941013	760147439	RFE-SLC-IS-EMT-BK/1U-PNL — Shelf Assembly, 1U, Internal Sliding, Black
941014	760147447	RFE-SLC-IS-EMT-BK/2U-PNL — Shelf Assembly, 2U, Internal Sliding, Black
941015	760147454	RFE-SLC-IS-EMT-BK/4U-PNL — Shelf Assembly, 4U, Internal Sliding, Black

#### Ready™ Keyed Panels

760147512

·		
CSC PART NO.	MFR. PART NO.	DESCRIPTION
942355	760147967	PNL-BK-024-KFA-LC02-YL-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Yellow
947200	760147959	PNL-BK-024-KFA-LC02-VI-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Violet
947448	760147942	PNL-BK-024-KFA-LC02-SL-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Slate
942362	760147934	PNL-BK-024-KFA-LC02-R0-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Rose
942354	760147926	PNL-BK-024-KFA-LC02-RD-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Red
947447	760147918	PNL-BK-024-KFA-LC02-OR-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Orange
942353	760147900	PNL-BK-024-KFA-LC02-GR-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Green
942363	760147892	PNL-BK-024-KFA-LC02-BR-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Brown
942352	760147884	PNL-BK-024-KFA-LC02-BL-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Blue
947446	760147876	PNL-BK-024-KFA-LC02-AQ-NS — Panel (1U, 2U, 4U), Black, with 12 Duplex Keyed Adapters, No Shutter, Aqua
942351	760147868	PNL-BK-012-KFA-LC02-YL-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Yellow
942361	760147850	PNL-BK-012-KFA-LC02-VI-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Violet
947445	760147843	PNL-BK-012-KFA-LC02-SL-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Slate
942359	760147835	PNL-BK-012-KFA-LC02-RO-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Rose
942350	760147827	PNL-BK-012-KFA-LC02-RD-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Red
942358	760147819	PNL-BK-012-KFA-LC02-OR-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Orange
942349	760147801	PNL-BK-012-KFA-LC02-GR-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Green
942360	760147793	PNL-BK-012-KFA-LC02-BR-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Brown
942348	760147785	PNL-BK-012-KFA-LC02-BL-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Blue
947444	760147777	PNL-BK-012-KFA-LC02-AQ-NS — Panel (1U, 2U, 4U), Black, with 6 Duplex Keyed Adapters, No Shutter, Aqua

#### Ready<sup>™</sup> Wall Mounts

CSC PART NO.	MFR. PART NO.	DESCRIPTION
941016	760147496	WBE-EMT-BK/2P-PNL — Wall Mount Building Enclosure, 2P, Black
941017	760147504	WBE-EMT-BK/4P-PNL — Wall Mount Building Enclosure, 4P, Black
941678	760147512	WBE-EMT-BK/8P-PNL — Wall Mount Building Enclosure, 8P, Black

**CORNING** 



#### Pretium Connector Housings (PCH) & Closet Connector Housings (CCH) — Rack-Mountable

#### Features/Benefits

- · Ideal for field connectorization
- Suitable for loose tube, tight-buffered, and optical fiber ribbon cables
- Standard 4.5" frontal projection plus flush-mount capability
- Factory- or field-installable lock
- Accommodates Corning Cable Systems' CCH connector panels

CSC PART NO.	MFR. PART NO.	DESCRIPTION
599536	PCH-01U	Pretium™ Connector Housing, 2 CCH Panels, 1U*
701075	PCH-02U	Pretium Connector Housing, 4 CCH Panels, 2U*
599537	PCH-04U	Pretium Connector Housing, 12 CCH Panels, 4U*
461963	CCH-01U	Closet Connector Housing, 2 CCH Panels, 1U*
461964	CCH-02U	Closet Connector Housing, 4 CCH Panels, 2U*
460612	CCH-03U	Closet Connector Housing, 6 CCH Panels, 3U*
461966	CCH-04U	Closet Connector Housing, 12 CCH Panels, 4U*
598718	CCS-01U	Closet Connector & Splice Housing, 2 CCH Panels, 1U*
578587	CCS-03U	Closet Connector & Splice Housing, 4 CCH Panels, 3U*
Accessories _		
464784	CDF-ER-7A-19	Closet Distribution Frame 7'H, 19"W
701060	CDF-IBU-7-6	Inter-Bay Storage Unit 6"W
701059	CDF-IBU-CVR-6	Inter-Bay Storage Unit Cover 6"W
499631	CJP-01U	Jumper Management Panel, 1U*
462012	CJP-02U	Jumper Management Panel, 2U*
479520	CJP-03U	Jumper Management Panel, 3U*
733910	BRP-19-1-75	Blank Filler Panel 19"W, 1U*
733911	BRP-19-2-75	Blank Filler Panel 19"W, 2U*
733912	BRP-19-3-75	Blank Filler Panel 19"W, 3U*
733913	BRP-19-4-75	Blank Filler Panel 19"W, 4U*
539517	BRP-19-5-75	Blank Filler Panel 19"W, 5U*
531190	HDWR-LOCK-KIT	Field-Installable Lock Kit



CCH-02U and CCH-01U



CCH-04U





WIC-02P and WIC-04P

#### Wall-Mountable Interconnect Center (WIC)

#### Features/Benefits

- Cost-effective enclosure designed for the storage and protection of up to 12 or 24 fiber optic connections
- Suitable for loose tube and tight-buffered optical fiber cables
- Incorporates mounting provisions for up to two splice trays for pigtail splicing

CSC PART NO.	MFR. PART NO.	DESCRIPTION
706617	WIC-02P	Enclosure — Wall-Mountable Interconnect Center; Accepts 2 CCH Panels (13"H x 8.5"W x 2.6"D)
706618	WIC-04P	Enclosure — Wall-Mountable Interconnect Center; Accepts 4 CCH Panels (13"H x 8.5"W x 4.1"D)
465414	WIC-012	Enclosure — 12 Fiber Wall-Mountable Interconnect Center; Accepts 2 WIC Panels (9.25"H x 8.5"W x 3"D)
465525	WIC-024	Enclosure — 24 Fiber Wall-Mountable Interconnect Center; Accepts 4 WIC Panels (9.25"H x 8.5"W x 4.6"D)
465528	WIC-CP1-15	Connector Panel — 6 Fiber Panel with 6 ST® Compatible Multimode Adapters Installed (ceramic)
465529	WIC-CP1-25	Connector Panel — 6 Fiber Panel with 6 ST Compatible Multimode Adapters Installed (composite)
479558	WIC-CP1-19	Connector Panel — 6 Fiber Panel with 6 ST Compatible Singlemode Adapters Installed (ceramic)
469020	WIC-CP1-57	Connector Panel — 6 Fiber Panel with 3 Duplex SC Multimode Adapters Installed (metal)
584548	WIC-CP1-59	Connector Panel — 6 Fiber Panel with 3 Duplex SC Singlemode Adapters Installed (ceramic)
584546	WIC-CP1-1297	Connector Panel — 12 Fiber Panel with 6 MT-RJ Multimode Adapters Installed
584547	WIC-CP1-1298	Connector Panel — 12 Fiber Panel with 6 MT-RJ Singlemode Adapters Installed
Accessories		
748102	WIC-GUARD	Optional Guard to Protect Jumpers (WIC-012 only)
733731	WIC-024-GUARD	Optional Guard to Protect Jumpers (WIC-024 only)





#### Wall-Mountable Connector Housings (WCH)

#### **CORNING**



#### Features/Benefits

- Ideal for field connectorization
- Suitable for loose tube and tight-buffered optical fiber cables
- Jumper routing guides and jumper strain-relief points
- Factory- or field-installable lock
- Accommodates Corning Cable Systems' CCH connector panels



CSC PART NO.	MFR. PART NO.	DESCRIPTION
462628	WCH-02P	Connector Housing — CCH Connector Panels Capacity, 2
462629	WCH-04P	Connector Housing — CCH Connector Panels Capacity, 4
490467	WCH-06P	Connector Housing — CCH Connector Panels Capacity, 6
480236	WCH-12P	Connector Housing — CCH Connector Panels Capacity, 12
Accessories		
480246	WJG-02R	Jumper Storage Guides
490468	WCH-DUST-CVR	Dust Cover for -04P and -06P
543146	WCH-DUST-CVR-D	Dust Cover for -12P
531190	HDWR-LOCK-KIT	Field-Installable Lock Kit

#### Closet Connector Housing Panels (CCH-CP)

#### Features/Benefits

- CCH connector panels are offered in 6, 8, 12, and 24 fiber count options in most adapter styles
- Available with ST® Compatible, SC duplex and simplex, LC duplex and simplex, MTP, MT-RJ, and FC adapters
- One panel size fits in all standard LANscape Solutions hardware, including CCH, PCH, CCS, WCH, ICH, EDC, FZB, SPH, and PWH
- Designed to accommodate all industry-standard adapter types
- Unique color-coded connector labeling system

CSC PART NO.	MFR. PART NO.	DESCRIPTION
513508	CCH-CP06-97	MT-RJ Adapter Type, MM 62.5 μm Fiber Type, 6 Fiber (3 adapters)
495161	CCH-CP08-97	MT-RJ Adapter Type, MM 62.5 μm Fiber Type, 8 Fiber (4 adapters)
467368	CCH-CP12-97	MT-RJ Adapter Type, MM 62.5 μm Fiber Type, 12 Fiber (6 adapters)
467369	CCH-CP24-97	MT-RJ Adapter Type, MM 62.5 μm Fiber Type, 24 Fiber (12 adapters)
703036	CCH-CP06-G1	MT-RJ Adapter Type, MM 50 μm Fiber Type, 6 Fiber (3 adapters)
584544	CCH-CP06-98	MT-RJ Adapter Type, SM Fiber Type, 6 Fiber (3 adapters)
495166	CCH-CP12-98	MT-RJ Adapter Type, SM Fiber Type, 12 Fiber (6 adapters)
495156	CCH-CP06-56	SC SMPLX Adapter Type, MM 62.5 µm Fiber Type, 6 Fiber (6 adapters)
460613	CCH-CP06-91	SC DPLX Adapter Type, MM 62.5 µm Fiber Type, 6 Fiber (3 adapters)
406248	CCH-CP12-91	SC DPLX Adapter Type, MM 62.5 µm Fiber Type, 12 Fiber (6 adapters)
703037	CCH-CP06-G7	SC DPLX Adapter Type, MM 50 µm Fiber Type, 6 Fiber (3 adapters)
467365	CCH-CP06-59	SC DPLX Adapter Type, SM Fiber Type, 6 Fiber (3 adapters)
467363	CCH-CP06-15T	ST® Compatible Ceramic Adapter Type, MM 62.5 µm Fiber Type, 6 Fiber (6 adapters)
461968	CCH-CP06-25T	ST Compatible Composite Adapter Type, MM 62.5 µm Fiber Type, 6 Fiber (6 adapters)
460128	CCH-CP12-15T	ST Compatible Ceramic Adapter Type, MM 62.5 µm Fiber Type, 12 Fiber (12 adapters)
495163	CCH-CP12-25T	ST Compatible Composite Adapter Type, MM 62.5 µm Fiber Type, 12 Fiber (12 adapters)
703039	CCH-CP06-G5	ST Compatible Ceramic Adapter Type, MM 50 µm Fiber Type, 6 Fiber (6 adapters)
461967	CCH-CP06-19T	ST Compatible Ceramic Adapter Type, SM Fiber Type, 6 Fiber (6 adapters)
495162	CCH-CP12-19T	ST Compatible Ceramic Adapter Type, SM Fiber Type, 12 Fiber (12 adapters)
594844	CCH-CP12-A7	LC DPLX Metal Adapter Type, MM 62.5 µm Fiber Type, 12 Fiber (6 adapters)
598223	CCH-CP12-A8	LC DPLX Ceramic Adapter Type, MM 62.5 µm Fiber Type, 12 Fiber (6 adapters)
594846	CCH-CP24-A7	LC DPLX Metal Adapter Type, MM 62.5 µm Fiber Type, 24 Fiber (12 adapters)
703041	CCH-CP24-A8	LC DPLX Ceramic Adapter Type, MM 62.5 µm Fiber Type, 24 Fiber (12 adapters)
703040	CCH-CP12-D3	LC DPLX Ceramic Adapter Type, MM 50 µm Fiber Type, 12 Fiber (6 adapters)
599533	CCH-CP24-D3	LC DPLX Ceramic Adapter Type, MM 50 µm Fiber Type, 24 Fiber (12 adapters)
594845	CCH-CP12-A9	LC DPLX Ceramic Adapter Type, SM Fiber Type, 12 Fiber (6 adapters)
594847	CCH-CP24-A9	LC DPLX Ceramic Adapter Type, SM Fiber Type, 24 Fiber (12 adapters)

NOTE: Other adapter types and configurations available; contact your local CSC Representative.



72 Fiber MTP Connector Panel



24 Fiber LC Duplex Connector Panel



12 Fiber ST Compatible Connector Panel



12 Fiber SC Duplex Connector Panel



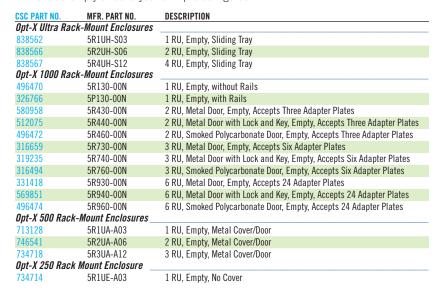


#### Opt-X® Rack-Mount Fiber Enclosures

Choose your ideal enclosures based on application size and density, space configuration, plus any special needs such as those in a data center.

#### Features

- Leviton-exclusive Opt-X footprint works with complementary adapter plates
- Sleek, functional Opt-X Ultra® enclosures are made from durable polycarbonate and 16-gauge powder-coated steel
- Opt-X Ultra sliding tray glides forward and backward and removes completely for easy termination and management
- Enclosures available from 1 to 6 RU
- Available empty or build your own pre-configured



#### Opt-X® Adapter Plates

#### **Features**

- Unique design works with Leviton's exclusive Opt-X series enclosures
- 3 RU enclosures accept up to 12 adapter plates (even quad LCs)
- Captive push/pull fasteners enable quick, tool-free installation and removal
- Available in 3-, 6-, and 8-packs (6 to 24 fibers)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
LOMM		
819606	5F100-3AC	Opt-X Adapter Plate, 3-Pack Duplex SC LOMM, (6 fiber) Aqua, Zirconia Ceramic Sleeve
778577	5F100-6AC	Opt-X Adapter Plate, 6-Pack Duplex SC LOMM, (12 fiber) Aqua, Zirconia Ceramic Sleeve
779633	5F100-12A	Opt-X Adapter Plate, 6-Pack Duplex LC LOMM, (12 fiber) Aqua, Zirconia Ceramic Sleeve
810145	5F100-24A	Opt-X Adapter Plate, 6-Pack Quad LC LOMM, (24 fiber) Aqua, Zirconia Ceramic Sleeve
MM		
461703	5F100-1ST	Opt-X Adapter Plate, 6-Pack ST MM, (6 fiber) Phosphor Bronze Sleeve
528064	5F100-8ST	Opt-X Adapter Plate, 8-Pack ST MM, (8 fiber) Phosphor Bronze Sleeve
567394	5F100-3BC	Opt-X Adapter Plate, 3-Pack Duplex SC MM, (6 fiber) Beige, Phosphor Bronze Sleeve
504237	5F100-6BC	Opt-X Adapter Plate, 6-Pack Duplex SC MM, (12 fiber) Beige, Phosphor Bronze Sleeve
596626	5F100-12P	Opt-X Adapter Plate, 6-Pack Duplex LC MM, (12 fiber) Beige, Phosphor Bronze Sleeve
868732	5F100-16P	Opt-X Adapter Plate, 8-Pack LC MM, (16 fiber) Beige, Phosphor Bronze Sleeve
702817	5F100-24P	Opt-X Adapter Plate, 6-Pack Quad LC MM, (24 fiber) Beige, Phosphor Bronze Sleeve
SM		
706944	5F100-6ZT	Opt-X Adapter Plate, 6-Pack ST SM, (6 fiber) Zirconia Ceramic Sleeve
755647	5F100-8ZT	Opt-X Adapter Plate, 8-Pack ST SM, (8 fiber) Zirconia Ceramic Sleeve
461705	5F100-3ZC	Opt-X Adapter Plate, 3-Pack Duplex SC SM, (6 fiber) Blue, Zirconia Ceramic Sleeve
472439	5F100-6ZC	Opt-X Adapter Plate, 6-Pack Duplex SC SM, (12 fiber) Blue, Zirconia Ceramic Sleeve
702815	5F100-12Z	Opt-X Adapter Plate, 6-Pack Duplex LC SM, (12 fiber) Blue, Zirconia Ceramic Sleeve
702816	5F100-24Z	Opt-X Adapter Plate, 6-Pack Quad LC SM, (24 fiber) Blue, Zirconia Ceramic Sleeve
Blanks		
868736	5F100-BPP	Blank Plate, Plastic
868737	5F100-BLK	Blank Plate, Metal





5R130-00N









5F100-3AC

5F100-6ZC

5F100-12P



5F100-24P

NOTE: Additional LOMM, MM, and SM SC, ST, and LC Opt-X adapter plates available. Contact your local CSC representative for ordering information.





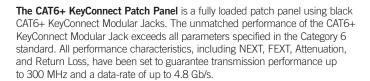


#### **KeyConnect Patch Panel Series**

**The KeyConnect Patch Panel Series** is a comprehensive line of robust all-metal, preloaded, and modular patch panels. The series provides a flexible, versatile, and high-density termination solution for data center and telecommunications room installations. The preloaded KeyConnect Patch Panels are available in 24-port/1U and 48-port/2U configurations with 10GX® and CAT6+ KeyConnect Modular Jacks. The modular KeyConnect Patch Panels are available in 24-port/1U, 48-port/2U, 72-port/2U, and 48-port/1U configurations. Belden's unique KeyConnect AngleFlex Patch Panels are also available in 24-port/1U and 48-port/2U, and offer better port-density and patch cord manageability. These panels can be configured using any KeyConnect UTP or Multimedia Modules.

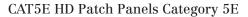


**The 10GX Patch Panel** is a fully loaded patch panel using black 10GX Modules. The performance of the 10GX Module exceeds all parameters specified in the proposed Augmented Category 6 standard. All performance characteristics, including ANEXT, have been set to guarantee transmission performance up to 625 MHz and a data-rate of up to 10 Gb/s. Because superior ANEXT performance is ensured by the module-related technologies, this enables the patch panel ports to be in line. There is no need to compromise on density, and labeling and cable management features are greatly improved.



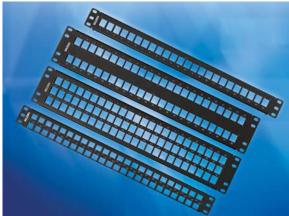
**The AngleFlex Patch Panel** is differentiated by offering better manageability and improved installation flexibility for data center and telecommunication room installations. Features patent-pending angles which provide intuitive left, right, or bi-directional patch cord routing and more efficient switch connection. Each section of 6 ports is removable, providing front access for easier termination and maintenance. Angled inserts eliminate the need for horizontal cable management, for a 27% space savings per rack.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
835392	AX103254	10GX Augmented Category 6 Patch Panel, 1U, 24-Port,
		Titanium (Loaded)
835391	AX103256	10GX Augmented Category 6 Patch Panel, 2U, 48-Port,
		Titanium (Loaded)
850739	AX103264	10GX Augmented Category 6 Patch Panel,
		Ultra-High Density, 1U, 48-Port, Titanium (Loaded)
840480	AX103253	CAT6+ KeyConnect Patch Panel, 1U, 24-Port,
		Black (Loaded)
838662	AX103255	CAT6+ KeyConnect Patch Panel, 2U, 48-Port,
		Black (Loaded)
842459	AX103114	KeyConnect Patch Panel, 1U, 24-Port, Black (Empty)
842458	AX103115	KeyConnect Patch Panel, 2U, 48-Port, Black (Empty)
869133	AX103116	KeyConnect Patch Panel, 2U, 72-Port, Black (Empty)
850735	AX103121	KeyConnect Patch Panel, 1U, 48-Port, Black (Empty)
826578	AX103248	AngleFlex Patch Panel, 1U, 24-Port, Black (Empty)
826579	AX103249	AngleFlex Patch Panel, 2U, 48-Port, Black (Empty



The Universal CAT5E HD Patch Panel Series includes a variety of product styles, sizes, and wiring configurations. CAT5E HD Patch Panels are robust and installer-friendly products by design, combining punch down connectors with standard modular jacks. They are available in both BIX and 110 Insulation Displacement Connection (IDC) options. A color-coded icon labeling system can be used to tag each patch panel port and simplify network management (ordered separately).









CSC PART NO.	MFR. PART NO.	DESCRIPTION
841293	AX103258	110 Patch Panel — 1U, 24-Port, Black, T568A/B
869027	AX103359	110 Patch Panel — 2U, 48-Port, Black, T568A/B
869028	AX103260	BIX Patch Panel — 1U, 24-Port, Black, T568A/B
848163	AX103261	BIX Patch Panel — 2U, 48-Port, Black, T568A/B

NOTE: Other configurations are available; contact your local CSC Representative.

See Page 74 for Belden Modular Panel Inserts.





#### Clarity® Shielded TracJack® Patch Panel Kit for 24 Shielded Modules

Shielded TracJack High-Density Patch Panel Kit accepts 24 Shielded TracJack modules, 19" x 1.75".

#### Features

- Rear loading shielded jacks support improved ease of termination and installation from the back of the panel
- Rugged shelf construction provides a means for cable management and strain relief
- Grounding lugs are provided on both sides of panel supports up to #6 ground wire and allows for easy accessibility and termination
- · Front labels support customized port identification



NOTE: See page 75 for Shielded TracJack and FTP Patch Cords; and page 47 for LANMark-6 FTP Category 6 Cable.

# **La legrand**





#### Shielded QuickPort® Patch Panels

#### Features

- · Panels offer a high level of security for networks in government, healthcare, financial, gaming, and other sensitive environments
- Exceptional protection against EMI and RFI and excellent alien crosstalk (AXT) suppression
- Stainless steel "comb" maintains consistent groundpath between connector and panel
- · Compatible with F/UTP, U/FTP, and other common shielded cable types
- · All configurations sold empty and accept all QuickPort connectors

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
QuickPort Shielded Flat Panel, Empty			
813100	4S255-S24	1 RU, 24-Port QuickPort Panel	
839392	4S255-S48	2 RU, 48-Port QuickPort Panel	

See page 76 for Leviton modular QuickPort shielded connectors and patch cords.

45256-S48

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
QuickPort Shiel	ded Angled Panel,	Empty	
839979	4S256-S24	1 RU, 24-Port QuickPort Panel	
839980	4S256-S48	2 RU, 48-Port QuickPort Panel	

#### Flat 110-Style UTP Patch Panels

Traditional flat panels work in almost any application. The Flat 110-Style is Leviton's most popular panel.

#### Features

- 1 RU 12- or 24-port, 2 RU 48-port, and 4 RU 96-port configurations
- Six-port RJ-45 modules on front; 110-style punchdowns on rear
- · Category 6A panels include magnified label holders for easy reading
- · Rear cable management bar included with panels
- Independently tested and verified by Intertek (ETL) to meet all TIA component, link, and channel requirements

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 6A I	Panels	
408284	6A586-U24	1 RU, 24-Port, Flat 110-Style Panel
852608	6A586-U48	2 RU, 48-Port, Flat 110-Style Panel
Category 6 Pa	anels	
593613	69586-U12	1 RU, 12-Port, Flat 110-Style Panel
593533	69586-U24	1 RU, 24-Port, Flat 110-Style Panel
593535	69586-U48	2 RU, 48-Port, Flat 110-Style Panel
762443	69586-C48	2 RU, 48-Port, Flat 110-Style Panel
		with Central Labeling
593614	69586-U96	4 RU, 96-Port, Flat 110-Style Panel



6A586-U24



69586-U48

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 5e Pa	anels	
702717	5G596-U12	1 RU, 12-Port, Flat 110-Style Panel
702718	5G596-U24	1 RU, 24-Port, Flat 110-Style Panel
702719	5G596-U48	2 RU, 48-Port, Flat 110-Style Panel
734704	5G596-C48	2 RU, 48-Port, Flat 110-Style Panel
		with Central Labeling
702720	5G596-U96	4 RU, 96-Port, Flat 110-Style Panel







#### Flat QuickPort® UTP Patch Panels

The QuickPort system, Leviton's exclusive set of mix-and-match panels, connectors, wallplates, and surface mount boxes, allows you to create the perfect mix of voice, data, audio, and video — all in a single panel.

#### Features

- Silk-screened port numbers on panel front
- High-density die-cast flat panels available in 1 RU, 48-port and 2 RU, 72-port
- All configurations available empty

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 6A Pai	nels	
767183	6910G-U24	1 RU, 24-Port, QuickPort Flat Panel
849198	6910G-D48	1 RU, 48-Port, QuickPort Die-Cast Flat Panel
767184	6910G-U48	2 RU, 48-Port, QuickPort Flat Panel
Category 6 Pane	els	
596228	69270-U24	1 RU, 24-Port, QuickPort Flat Panel
805526	69270-D48	1 RU, 48-Port, QuickPort Die-Cast Flat Panel
595522	69270-U48	2 RU, 48-Port, QuickPort Flat Panel





49255-D72

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 5e Pane	els	
734684	5G270-U24	1 RU, 24-Port, QuickPort Flat Panel
800688	5G270-D48	1 RU, 48-Port, QuickPort Die-Cast Flat Panel
734685	5G270-U48	2 RU, 48-Port, QuickPort Flat Panel
Empty Panels		
408381	49255-H24	1 RU, 24-Port, QuickPort Flat Panel
801442	49255-D48	1 RU, 48-Port, QuickPort Die-Cast Flat Panel
408382	49255-H48	2 RU, 48-Port, QuickPort Flat Panel
797872	49255-D72	2 RU, 72-Port, QuickPort Flat Panel

See page 76 for Leviton modular QuickPort UTP connectors and patch cords.

#### Angled and Recessed-Angled UTP Patch Panels

Angled patch panels are ideal for freestanding 19" rack applications, with easy termination and improved patch cord routing. Choose recessed-angled patch panels for cabinet and rack applications with minimal depth in front of the panel.

#### Features

- Conserve rack space by routing patch cords directly into vertical cable management
- Angled design facilitates proper bend radius and simplifies termination
- 110-style angled panels include a snap-in plastic label holder and card stock labels
- QuickPort high-density 1 RU, 48-port angled panel available
- · All QuickPort configurations available empty

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 6A Pa	nels	
868730	6A587-U24	1 RU, 24-Port, 110-Style Angled Panel
852294	6A587-U48	2 RU, 48-Port, 110-Style Angled Panel
Category 6 Pan	els	
703441	69587-U48	2 RU, 48-Port, 110-Style Angled Panel
764123	6W587-U48	2 RU, 48-Port, 110-Style Recessed-Angled Panel
Category 5e+ P	Panels	
745541	5G597-U48	2 RU, 48-Port, 110-Style Angled Panel
764136	5W597-U48	2 RU, 48-Port, 110-Style Recessed-Angled Panel



CSC PART NO.	MFR. PART NO.	DESCRIPTION
Empty Panels		
815152	49256-H24	1 RU, 24-Port, QuickPort Angled Panel
862875	49256-D48	1 RU, 48-Port, QuickPort Die-CastAngled Panel
724631	49256-H48	2 RU, 48-Port, QuickPort Angled Panel
810600	49256-D72	2 RU, 72-Port, QuickPort Angled Panel
764138	4W256-H24	1 RU, 24-Port, QuickPort Recessed-Angled Panel
764137	4W256-H48	2 RU, 48-Port, QuickPort Recessed-Angled Panel
810603	4W256-D72	2 RU, 72-Port, QuickPort Recessed-Angled Panel

See page 76 for Leviton QuickPort UTP connectors and patch cords.

#### C1 Ultra Composite Patch Panels

The C1 Composite Ultra Patch Panel combines style, strength, and customizability to create one of the industry's most state-of-the-art patch panels.

#### Features

- Panel face can be customized to feature any design, color, or logo
- Integrated patch cord managers save up to 50% of rack space
- Composite construction gives the C1 Ultra a higher strength-to-weight ratio than metal patch panels
- Made in the U.S.A.
- 100% recyclable

CSC PART NO.	MFR. PART NO.	DESCRIPTION
860094	C1686-U48	2RU 48-Port Category 6 110-Style Flat Panel
862775	C1586-U48	2RU 48-Port Category 5e 110-Style Flat Panel

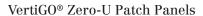


C1255-H48

CSC PART NO.	MFR. PART NO.	DESCRIPTION
862778	C1255-H48	2RU 48-Port QuickPort® Modular Patch Panel
862779	C1253-2CM	2RII Cable Manager/Blank Panel







Patented VertiGO Zero-U Patch Panels offer unprecedented versatility for a wide range of installations where traditional cabinet space is lacking.

#### **Features**

- Low-profile design fully covers connections
- Styles with 3" and 6" channels provide additional cable management space
- Hinged doors provide easy access to termination field
- All styles sold empty with either QuickPort® or Opt-X® style openings
- · Accepts copper, fiber, and A/V connectors

CSC PART NO.	MFR. PART NO.	DESCRIPTION
800339	49280-QP0	12-Port QuickPort VertiGO Panel, Panel Only
800341	49380-QP3	12-Port QuickPort VertiGO Panel, with 3" Channel
800343	49280-QP6	12-Port QuickPort VertiGO Panel, with 6" Channel
See page 76 fo	r Leviton QuickPort i	modular connectors and patch cords.







49380-QP3

#### Mini-Com® All Metal Shielded Modular Patch Panels

CPA72BLY



#### CP48BLY

CSC PART NO.	MFR. PART NO.	DESCRIPTION
808845	CP16BLY	16-Port All-Metal Modular Patch Panel — 1 RU
788356	CP24BLY	24-Port All-Metal Modular Patch Panel — 1 RU
804004	CP48BLY	48-Port All-Metal Modular Patch Panel — 2 RU
817801	CP72BLY	72-Port All-Metal Modular Patch Panel — 2 RU
796004	CPA24BLY	Angled 24-Port, All-Metal Modular Patch Panel — 1 RU
796055	CPA48BLY	Angled 48-Port, All-Metal Modular Patch Panel — 2 RU

Shielded non-keyed jack modules only available in black. See page 55 for Category 6A 10Gig™ Shielded Copper Cable, and page 78 for Category 6A 10Gig™ Shielded Patch Cord and for Category 6A 10Gig™ Shielded Jack Module.

Angled 72-Port, All-Metal Modular Patch Panel — 2 RU

#### **Features and Benefits**

- Accept Mini-Com® Modules for grounded shielded applications
- Provide write-on areas for port identification
- CPT removal tool allows easy moves, adds, and changes of shielded jack modules
- Mount to standard TIA/EIA 19" rack or 23" racks with optional extender bracket

"The company thought it was necessary to make layout changes at the lowest possible cost. The best decision is selecting re-usable products."







#### DPoE<sup>™</sup> Power over Ethernet Power Patch Panels

DPoE™ Power over Ethernet systems utilize power patch panels in various port and data capability designs, a compact power midspan with 2X power (up to 32W), and power systems with low heat dissipation.



#### **Features and Benefits**

- Provide data and power connectivity to Power over Ethernet compliant and legacy devices, such as Voice over IP phones, wireless access points, and security cameras
- Fully compliant with IEEE 802.3af standards
- · Combine patching and power in a single device, occupying only one rack space
- · Ease component/port identification with labeling sections above each port to accommodate TIA-606A compliant labels

CSC PART NO.	MFR. PART NO.	DESCRIPTION
794794	DP0E24U1XG	24-Port 1Gbe, 48V Power Patch Pane

NOTE: Power supply and/or power system sold separately.

#### DPoE<sup>™</sup> Power Midspan

#### **Features and Benefits**

- Delivers reliable, cost-effective Power over Ethernet to new or existing networks
- Compact, modular design allows up to three units to fit horizontally across one rack space
- Fully compliant with IEEE 802.3af standards
- · Scalable to grow network as needed

CSC PART NO.	MFR. PART NO.	DESCRIPTION
788158	DP0E8S2XG	8-Port, 1 GbE, 2X Power, 48V Power Midspan
806915	DP0E8KIT	Kit with 8-Port Power Midspan, 120W Power Supply, and Power Cord
795594	DP0EWM8B	Wall Mount Bracket for DPOE8S2XG
826206	DP0EPL8BU	8-Port Passive Patch Panel Module
795592	DPOESHELF	1 RU Shelf for DP0E82XG

NOTE: Power supply and/or power system sold separately.

#### DPoE<sup>™</sup> Power Supply

#### **Features and Benefits**

- · Provides up to 120W of regulated power
- Offers flexible placement inside of rack
- Removes AC to DC power conversion heat from power patch panels due to isolation
- LED indicates when power is being supplied to the panel



CSC PART NO.	MFR. PART NO.	DESCRIPTION
782530	DP0FPWRR120Y	120W Power Supply for Power Patch Panels and Midspan

NOTE: Power supply requires proper AC country-specific power cord (CORD-A for Australia, CORD-E for Europe, CORD-S15 for North America, CORD-J15 for Japan, or CORD-U for United Kingdom); must be ordered separately.

#### DPoE<sup>™</sup> Power System

#### **Features and Benefits**

- Offers high power and efficiency in a 1 RU size
- Offers 48 VDC power scalable from 1,250W to 3,750W
- · Utilizes high efficiency power supplies that can be hot swapped for upgrades
- · Consistent powering across a wide range of devices

CSC PART NO.	MFR. PART NO.	DESCRIPTION
767326	DPOEPWRCU	Power Chassis
767328	DP0EPWRR1250	1,250W Rectifier Option for Power Chassis

NOTE: Power system chassis requires proper AC country-specific power cord (CORD-A for Australia, CORD-E for Europe, CORD-S15 for United States, CORD-J15 for Japan, or CORD-U for United Kingdom); must be ordered separately.







#### Power over Ethernet (PoE) Switches and Media Converters

Combine power and data on one cable — eliminating the need for additional, unnecessary power cable runs to security cameras, wireless access points, or IP phones. Transition Networks' full line of feature-rich Power-Over-Ethernet (PoE) products provide power over the Ethernet cabling, while easing installation and power location concerns, which enables your network to have the intended flexibility and scalability to expand and grow. Transition Networks' managed PoE switches also address energy efficiency with software that allows the switch to go into a "Green" low-power mode when ports are inactive or are drawing a diminished load.



COMMSCOPE®







CSC PART NO.	MFR. PART NO.	DESCRIPTION
860015	MIL-SM8TXAF2GPA	8-Port 10/100 Managed PoE Switch + (2) SFP/RJ-45 Combo Ports
825583	MIL-SM2401MAF	24-Port 10/100 Managed PoE Switch + (2) SFP/RJ-45 Combo Ports
874258	MIL-SM8TAF1GPB	8-Port 10/100/1000 Managed PoE Switch + (1) SFP/RJ-45 Combo Port. Port 1 Supports PoE+ (802.3at)
813712	SP0EB1011-100	Fast Ethernet PoE Media Converter 10/100BASE-TX to 100BASE-FX 1300 nm MM (ST) Link Budget: 11.0 dB
809922	SP0EB1013-100	Fast Ethernet PoE Media Converter 10/100BASE-TX to 100BASE-FX 1300 nm MM (SC) Link Budget: 11.0 dB
818287	SP0EB1014-100	Fast Ethernet PoE Media Converter 10/100BASE-TX to 100BASE-FX 1310 nm SM (SC) Link Budget: 16.0 dB
860009	SGP0E1013-100	Gigabit PoE Media Converter 10/100/1000BASE-T to 1000Base-SX 850 nm MM (SC) Link Budget: 8.0 dB
860010	SGP0E1014-100	Gigabit PoE Media Converter 10/100/1000BASE-T to 1000Base-SX 1310 nm SM (SC) Link Budget: 7.0 dB
849539	SGP0E1040-100	Gigabit PoE Media Converter 10/100/1000BASE-T to 100/1000BASE-X SFP Slot (Empty)

#### SYSTIMAX Intelligent Infrastructure Solutions — iPatch

Built on world-renowned high-performance SYSTIMAX copper and fiber connectivity, SYSTIMAX Intelligent Infrastructure Solutions are more than just hardware — they are comprehensive, fully supported solutions that have been engineered to help you document, manage, and monitor your physical network infrastructure. SYSTIMAX iPatch hardware, including intelligent copper panels, fiber optic shelves, and infrastructure control systems, gives you a vision into real-time changes to your physical layer network.

SYSTIMAX iPatch System Manager Infrastructure Operations Software correlates this vision with information from networking equipment, IP endpoints, and other systems to provide knowledge of how the network layer devices map to the physical layer.

This combination of hardware and software — of vision and knowledge — gives you unprecedented control of your physical layer infrastructure. You will have what you need for a real-time, comprehensive view of your physical network infrastructure to document, plan, and execute changes.

Backed by the SYSTIMAX Intelligent Infrastructure Solutions research, development, and support teams, and CommScope's Certified iPatch Business Partners, you will have the support you need to design, install, configure, and maintain an Intelligent Infrastructure Solution.

#### **Features**

- Accurate documentation of the end-to-end connectivity between networked devices
- Real-time tracking of changes to physical layer connections
- · Alerts on unauthorized or unplanned changes
- · Notification of impacts to critical circuits
- Discovery of network devices, with tracking of physical locations
- Service provisioning and electronic work orders for guided deployment in data centers or office environments



760095562

- · Complete visibility and control of your physical layer infrastructure
- Reduced MAC (moves, adds, and changes) cycle time and rework through guided patching
- Simplified audit and tracking process

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Infrastructure	Control Systems	
854731	760095562	360-IP-PANEL-MGR — 360 iPatch Panel Manager
859269	760105353	360-iP-NET-MGR-MOD — SYSTIMAX 360™ iPatch® Network Manager Module







# SYSTIMAX Intelligent Infrastructure Solutions — iPatch (continued)







760104992





760105171



760105015



	Married Married Woman or will		
		760107771	760107789
SC PART NO.	MFR. PART NO.	DESCRIPTION	
	High-Density Fiber		
The 360 iPatcl	h G2 High-Density F	iber Shelf accommodates 72 duplex LC ports (14	4 fibers) in 2U space. It is available empty, with the ability to be populated with 1, 2, or 3
			or Beta installations and features the elegant SYSTIMAX 360 design.
356820	760103143	360G2-2U-MOD-SD — 360 iPatch G2 HD Fiber	/
356858	760093344	360-IP-HD-MOD-LC-LS — 360 iPatch G2 HD L	
356860	760093351	360-IP-HD-MOD-LC-LS-3 — 360 iPatch G2 HD	
356862	760093369	360-IP-HD-MOD-LC-TS — 360 iPatch G2 HD T	
356864	760093377	360-IP-HD-MOD-LC-TS-3 — 360 iPatch G2 HD	
356866	760093385	360-IP-HD-MOD-LC-OS — 360 iPatch G2 HD C	
356867	760093393	360-IP-HD-MOD-LC-OS-3 — 360 iPatch G2 OS	Module (3-pack)
_	ent Fiber Optic She		
356809	760105163	360-IP-G2-1U-LC-FX — 24-Port, 1U, Fixed	
356811	760105171	360-IP-G2-1U-LC-SD — 24-Port,1U, Sliding	
356823	760105148		it for 360G2-1U-MOD Shelves with LC Cassettes
		fiber Optic Shelves	
775943	760038513	IP-PTF-12-SC-LS — Pre-Terminated 12-Port D	
328455	760066183	IP-PTF-12-SC-OS — Pre-Terminated 12-Port D	
775944	760038521	IP-PTF-12-SC-TS — Pre-Terminated 12-Port D	
775945	760038539	IP-PTF-24-LC-LS — Pre-Terminated 24-Port D	ıplex LC LazrSPEED Intelligent Fiber Shelf
324628	760066191	IP-PTF-24-LC-OS — Pre-Terminated 24-Port D	uplex LC OptiSPEED Intelligent Fiber Shelf
775946	760038547	IP-PTF-24-LC-TS — Pre-Terminated 24-Port D	ıplex LC TeraSPEED Intelligent Fiber Shelf
947680	760117424	360-iP-INSTA-LC-40S — 360 iPatch InstaPatc	h LC, 4 OS Mod
947681	760117432	360-iP-INSTA-LC-4LS — 360 iPatch InstaPatc	n LC, 4 LS Mod
947682	760117440	360-iP-INSTA-LC-4TS — 360 iPatch InstaPatc	n LC, 4 TS Mod
Patch Intellige	ent Copper Patch F	Panels	
356780	760104984	360-IP-1100-GS3-24 — 24-Port, 1U	
356781	760105007	360-IP-1100-GS3-48 — 48-Port, 2U	
356801	760104992	360-IP-UP-KIT-1100-24 — 360 iPatch Upgrad	e Kit for 360 1100 24-Port Panel
356803	760105015	360-IP-UP-KIT-1100-48 — 360 iPatch Upgrad	e Kit for the 360 1100 48-Port Panel
370748	760107771	360-iP-1100-GS5-24 — SYSTIMAX 360™ iPato	
370749	760107789	360-iP-1100-GS5-48 — SYSTIMAX 360™ iPato	h® 1100GS5 Panel, 48 Port
947679	760116665	iP-M4200i-24-FTP — iPatch M4200i 24-Port F	TP, Blank without Modules for FTP
nfrastructure	Operations Softwa	re — System Manager Basic: Downloadable for	No Charge for Registered Intelligence-Enabled Deployments
947455	DOWNLOAD 1	IP-SYS-MGR-BASIC — iPatch System Manager	
370739	760111187	IP-SYS-MGR-EE-2K — iPatch System Manager	Enterprise Up to 2,000 Users
370740	760111195	IP-SYS-MGR-EE-10K — iPatch System Manage	
351272	760090068	IP-SYS-MGR-EE-UNL — iPatch System Manag	
370741	760111203	IP-SYS-MGR-UPG-2-10 — iPatch System Mana	
370743	760111229	IP-SYS-MGR-UPG-10-UNL — iPatch System M	
370742	760111211	IP-SYS-MGR-UPG-2-UNL — iPatch System Ma	

IP-SYS-MGR-ELS-INT — iPatch System Manager Enhanced Location Service for Emergency Response

IP-SYS-MGR-OPC-INT — iPatch System Manager OPC Integration

System Integrations\_ 828611 76

760083402

760083410

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#### PanView iQ<sup>™</sup> Fiber Trays

PanView iQ<sup>™</sup> Fiber Tray with the PanView iQ<sup>™</sup> Flat Patch Panel provides an integrated solution to manage patching capabilities for fiber channels both on standalone and via the PIM<sup>™</sup> Software.

#### **Features and Benefits**

- Provide protection to critical fiber splices
- Installable in a 19" standard TIA/EIA rack or cabinet utilizing a 1 RU space
- Provide overall fiber management utilizing the PanView iQ<sup>™</sup> System

CSC PART NO.	MFR. PART NO.	DESCRIPTION
869217	PVQ-FMT	24-Port Fiber Tray with No Fiber Adapters
869218	PVQ-FMTMTP-ZX	24-Port Fiber Tray, Including 24 SFF Duplex Multimode Adapters
869219	PVQ-FMTMTP-9	24-Port Fiber Tray, Including 24 SFF Duplex Singlemode Adapters



PanView iQ™ Patch Panels permit cabling and data connectivity to be installed immediately with "intelligence-ready" connections that allow for the incremental growth and provisioning of panel management capabilities.

#### **Features and Benefits**

- Accommodate intelligent modules that mount in the rear and utilize no additional rack space (zero RU)
- Accept all Mini-Com® UTP, STP, and LC Fiber Optic Modules
- Accept a PanView iQ<sup>™</sup> Interface Unit to provide patch cord tracing and provisioning of switch ports with PanView iQ<sup>™</sup> Interconnect Patch Cords or patch field mapping with PanView iQ<sup>™</sup> Cross-Connect Patch Cords
- Mount to standard EIA 19" or 23" racks with optional extender bracket



PVQ-MIQPS96F	PVQ-MIQPS96A

CSC PART NO.	MFR. PART NO.	DESCRIPTION
869213	PVQ-MIQAPU24	24-Port Unpopulated Angled Unshielded Modular Intelligent Module Ready Patch Panel
869214	PVQ-MIQAPS24	24-Port Unpopulated Angled Shielded Modular Intelligent Module Ready Patch Panel
843177	PVQ-MIQPU24	24-Port Unpopulated Flat Unshielded Modular Intelligent Module Ready Patch Panel
869215	PVQ-MIQPS24	24-Port Unpopulated Flat Shielded Modular Intelligent Module Ready Patch Panel
843174	PVQ-MIQPS96F	96-Port Unpopulated Flat Unshielded Modular Intelligent Module Ready Panel Kit
869216	PVQ-MIQPS96A	96-Port Unpopulated Angled Unshielded Modular Intelligent Module Ready Panel Kit

#### PanView iQ™ Intelligent Modules

PanView  $iQ^{\mathbb{M}}$  Intelligent Modules enable the PanView  $iQ^{\mathbb{M}}$  Patch Panels to sense connections and disconnections from each port and relay status information to the Physical Infrastructure Manager<sup> $\mathbb{M}$ </sup> (PIM) database.

#### **Features and Benefits**

- Provide manageability for a PanView iQ<sup>™</sup> Patch Panel
- Eliminate need for additional rack space by attaching directly to the back of a PanView iQ™ Patch Panel
- Enable quick addition, removal, or replacement of intelligent modules to add management capabilities
- Support both cross-connect and interconnect installations

CSC PART NO.	MFR. PART NO.	DESCRIPTION
843178	PVQ-PM	Panel Manager (includes mounting bracket,
		1.5' [0.5m] RJ45 patch cord, and interface unit)
843179	PVQ-EM	Expansion Module (includes mounting bracket,
		expansion port cable, and interface unit)
843175	PVQ-PS12VDC-S	30W Power Supply for North America

NOTE: PanView iQ™ Panel Manager requires proper country-specific power supply.









#### $AMPTRAC^{TM}$

1933443-1

AMPTRAC turns cabling systems and their connected devices into intelligent networks, reducing costly and time-consuming manual cable management.





AMPTRAC Sensor Strips

AMPTRAC Category 6

Cable Assembly

1933420-2

1777041-1



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1499647-2

1933324-1



**Features** 

AMPTRAC SC Duplex to LC Duplex Cable

Assembly

- AMPTRAC sensor strips enable reduction of space requirements by application of intelligence directly to network electronics (e.g.: Switches, Routers)
- Monitors and documents the connectivity and devices on cabling and Ethernet networks
- Provides more than 65 detailed reports, along with more than 60 filterable specific alerts
- Complete product line support: XG Category 6A STP, Category 6 UTP, Fiber (SC, LC), MPO (fiber), MRJ21 (copper), and miscellaneous LAN equipment
- Analyzer LCD displays work order and circuit trace information along with good/bad audible tone alert guidance
- Automatically provides corrective work actions to recover network configurations from unauthorized changes

#### Benefits

- Automated work order process provides a controlled 'paperless' task driven interface that guides and monitors for accuracy of work as it occurs
- Physical awareness enables monitoring of Asset movement rules and constraints (e.g.: unclassified equipment connecting in unauthorized areas)
- Detailed Monitoring of work tasks and performance enables improvement of response, process, accuracy and best practices
- Real-time monitoring improves response time, reduces downtime, and enables network status reports at anytime
- Logging of events provides auditable records of network activity, changes, asset movement, and performance metrics
- Improves port and asset utilization, as well as reporting asset locations and movements
- Remote monitoring and diagnosis save time and money
- Provides alerts and alarms for changes relating to work orders, devices and their connectivity, and system access

CSC PART NO.	MFR. MODEL NO.	DESCRIPTION
947943	3-1591309-1	AMPTRAC Analyzer: 336-Port with IM Software and 1-Year Service Level Agreement
947944	4-1591309-1	AMPTRAC Analyzer: 168-Port with IM Software and 1-Year Service Level Agreement
821255	1933323-1	SL Series Multimedia AMPTRAC Patch Panel, 24-Port (uses standard SL jack inserts)
821254	1933324-1	SL Series Multimedia AMPTRAC Patch Panel, 48-Port (uses standard SL jack inserts)
769143	1777041-1	MRJ21 AMPTRAC Patch Panel, 48-Port, 4-Pair (10/100/1000BASE-T) (uses standard MRJ21 cable assemblies)
857414	1777042-1	MRJ21 AMPTRAC Patch Panel, 48-Port, 2-Pair (10/100BASE-T) (uses standard MRJ21 cable assemblies)
947942	1933443-1	AMPTRAC Optical Fiber Patch Panel — 1U Drawer, 4-Insert Capacity
947940	1933420-2	Duplex LC AMPTRAC Interface Module, 12-Fiber, 6-Port, XG 0M3 50 μm
947941	1933420-3	Duplex LC AMPTRAC Interface Module, 12-Fiber, 6-Port, Singlemode
817831	1499647-2	Duplex LC AMPTRAC MPO Cassette, 12-Fiber, 6-Port, XG 0M3 50 μm (uses standard MPO cable assemblies)
947938	1499649-2	Duplex LC AMPTRAC MPO Cassette, 12-Fiber, 6-Port, Singlemode (uses standard MPO cable assemblies)
Call	Various	AMPTRAC LAN Electronics Sensor Strips (PN varies by manufacturer and model of LAN equipment)
Call	Various	Copper Patch Cable Assemblies for AMPTRAC
Call	Various	Optical Fiber Patch Cable Assemblies for AMPTRAC
947939	1933152-7	AMPTRAC Analyzer I/O Cable Assembly: DB25 - 110P&P, 24 Conductor (for SL panels)
947937	1499507-0	AMPTRAC Analyzer I/O Cable Assembly: DB25 - HD22, 24 Conductor (for MRJ21 panels)
947936	1435845-0	AMPTRAC Analyzer I/O Cable Assembly: DB25 - 2.0mm, 24 Conductor (for LAN sensor strips)





#### Fiber Express Ultra Patch Panels

Belden's Fiber Express Ultra Patch Panel System is ultra-rich in user-friendly features that elevate fiber patching to a whole new level. Designed to meet the needs of IT managers and their technical teams, Belden built the system around three core concepts:

- Ultra-high density
- Ultra-easy installation and maintenance
- Ultra flexibility, scalability, and manageability

The result is a fiber patching system that is easy to deploy, operate, and maintain, while ensuring maximum uptime, uninterrupted availability, and superior performance — whether in the data center, LAN backbone, or storage area network (SAN). The system's modular design provides optimal flexibility and scalability to "future proof" your investment and to provide a low total cost of ownership when compared to other fiber patching systems.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
FiberExpress L	lltra System Patch F	Panels
862979	AX103143	1U Rack Mount Patch Panel, 19", Black
875910	AX103267	4U Rack Mount Patch Panel, 19", Black
881805	AX103910	4U 23" Rack Extension Brackets, Black
849731	AX103928	Wall Mount Stackable Patch Panel, Black
881807	AX103932	Wall Mount Patch Panel 2" Spacer, Black
FiberExpress L	Iltra Casettes	
881810	AX103622	LC Duplex-MPO, OM1, 62.5 µm Multimode, 6 fibers
881812	AX103623	LC Duplex w/Shutter-MPO, OM1, 62.5 µm Multimode, 6 fibers
881813	AX103641	LC Duplex-MPO, OM1, 62.5 µm Multimode, 12 fibers
881814	AX103642	LC Duplex w/Shutter-MPO, OM1, 62.5 µm Multimode, 12 fibers
881815	AX103657	LC Duplex-MPO, OM1, 62.5 µm Multimode, 24 fibers
881816	AX103676	LC Duplex-MPO, OM2, 50 µm Multimode, 6 fibers
881817	AX103677	LC Duplex w/Shutter-MPO, OM2, 50 µm Multimode, 6 fibers
881818	AX103683	LC Duplex-MPO, OM2, 50 µm Multimode, 12 fibers
881819	AX103684	LC Duplex w/Shutter-MPO, OM2, 50 µm Multimode, 12 fibers
881820	AX103687	LC Duplex-MPO, OM2, 50 µm Multimode, 24 fibers
881821	AX103694	LC Duplex-MPO, OM3, 50 µm Multimode, 6 fibers
881822	AX103695	LC Duplex w/Shutter-MPO, OM3, 50 µm Multimode, 6 fibers
881823	AX103713	LC Duplex-MPO, OM3, 50 µm Multimode, 12 fibers
881824	AX103714	LC Duplex w/Shutter-MPO, OM3, 50 µm Multimode, 12 fibers
881825	AX103729	LC Duplex-MPO, OM3, 50 µm Multimode, 24 fibers
881826	AX103802	LC Duplex-MPO, Enhanced Singlemode, OS2, 6 fibers
881827	AX103803	LC Duplex w/Shutter-MPO, Enhanced Singlemode, OS2,6 fibers
881828	AX103821	LC Duplex-MPO, Enhanced Singlemode, OS2,12 fibers
881829	AX103822	LC Duplex w/Shutter-MPO, Enhanced Singlemode, OS2,12 fibers
881830	AX103837	LC Duplex-MPO, Enhanced Singlemode, OS2, 24 fibers



NOTE: This represents a small portion of the FiberExpress Ultra Patch Panel System part numbers.

Casettes are also available in ST, SC, and MT-RJ. FiberExpress Ultra Frames and Bezels are available in ST, SC, LC, MT-RJ, FC, SP APC, and LC APC, with or without Pigtails.

Accessories include Rack and Wall Mount Splice Enclosures, Door Locks, AND 8", 10", and 12" Splice Trays.







#### NetClear® MM10 Fiber Optic Solutions

NetClear MM10 pre-terminated fiber optic solutions feature GIGAlite-10 and GIGAlite-10XB multimode fiber, guaranteed to support 10 Gigabit Ethernet to industry-leading distances, and Ortronics connectivity for industry-leading insertion loss performance. They are engineered for high-speed performance as part of high assurance network deployments and secure facility construction.

#### **Features**

- Performance guarantee well beyond the IEEE and Fibre Channel distance limitations for standard multimode fiber optic cable
- Zero Bit-Error Performance
- Superior DMD of GIGAlite-10XB offers greater than 25% improvement of link loss budget
- Pre-Terminated Trunk Cable Assemblies deliver enhanced optical performance and fast deployment





**Ortronics** 









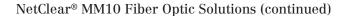
CSC PART NO.	MFR. PART NO.	DESCRIPTION
780556	OR-M2LCQ24-50E	Momentum 2 Cassettes, 10G, 50/125 LC Quad, 24 Fiber, 2 MTP with Pins, 1U
795345	OR-M2SCD12-50E	Momentum 2 Cassettes, 10G, 50/125 SC Duplex, 12 Fiber, 1 MTP with Pins, 1U
747718	OR-205KAS9GA-50T	OptiMo® Field-Installable Connector, SC, 50/125, No Epoxy/No Polish Zirconia Ferrule (for tight buffered cable)
594433	OR-205KAS9FA-50T	OptiMo® Field-Installable Connector, LC, 50/125, No Epoxy/No Polish Zirconia Ferrule (for tight buffered cable)
853875	OR-854B00000-1	Field Installation Kit, Pre-Polished
781722	OR-205KAN9FA-MM	OptiMo® Field-Installable Connector, SC Multimode, Anaerobic Termination, Zirconia Ferrule (ideal for Adventum cable)
811282	OR-205KAN9GA-MM	OptiMo® Field-Installable Connector, LC Multimode, Anaerobic Termination, Zirconia Ferrule (ideal for Adventum cable)
810050	OR-85400010	Field Installation Kit, Anaerobic
759096	OR-FC01U-P	FC Series Rack-Mount Patch Fiber Cabinets, Holds 3 Adapter Panels, 1U
765975	OR-FC02U-P	FC Series Rack-Mount Patch Fiber Cabinets, Holds 6 Adapter Panels, 2U
768265	OR-FC03U-P	FC Series Rack-Mount Patch Fiber Cabinets, Holds 9 Adapter Panels, 3U
768266	OR-FC04U-P	FC Series Rack-Mount Patch Fiber Cabinets, Holds 12 Adapter Panels, 4U
817346	OR-OFP-SCD12LC	Adapter Panel, SC Duplex, 12 Fibers, Aqua, Ceramic Sleeve
808078	OR-OFP-LCD12LC	Adapter Panel, LC Duplex, 12 Fibers, Aqua, Ceramic Sleeve
810775	OR-OFP-LCQ24LC	Adapter Panel, LC Quad, 24 Fibers, Aqua, Ceramic Sleeve
837894	OR-FST2-F012	12" Fusion Splice Tray
750884	OR-20500043	40mm Heat Shrink, Fusion Splice Protection Cover, Pack of 50
869874	OR-P1DF2LRFZFZ001M	Patch Cord, SC to SC, 50/125 LOMF, 1 Meter
882572	OR-P1DF2LRFZFZ002M	Patch Cord, SC to SC, 50/125 LOMF, 2 Meters
945653	OR-P1DF2LRFZFZ003M	Patch Cord, SC to SC, 50/125 LOMF, 3 Meters
877993	OR-P1DF2LRGZGZ001M	Patch Cord, LC to LC, 50/125 LOMF, 1 Meter
865885	OR-P1DF2LRGZGZ002M	Patch Cord, LC to LC, 50/125 LOMF, 2 Meters
873675	OR-P1DF2LRGZGZ003M	Patch Cord, LC to LC, 50/125 LOMF, 3 Meters
839339	OR-P3DF2LRGZGZ001M	Patch Cord, Premium Performance, LC to LC, 50/125 LOMF, 1 Meter
839341	OR-P3DF2LRGZGZ002M	Patch Cord, Premium Performance, LC to LC, 50/125 LOMF, 2 Meters
839343	OR-P3DF2LRGZGZ003M	Patch Cord, Premium Performance, LC to LC, 50/125 LOMF, 3 Meters
Micro Data Cei	nter — Plenum	
947434	BMDP72X77SSP150	72 Fiber, 50/125 µm (4900/500 MHz) GIGAlite-10XB Multimode, Aqua Jacket, MTP Female with 3.0mm Round, 39" Break-Out,
		MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.), 150 Feet
947439	MDP12X77SSP050	12 Fiber, 50/125 μm (4900/500 MHz) GIGAlite-10XB Multimode, Aqua Jacket, MTP Female with 3.0mm Round, 39" Break-Out,
		MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (1.3" O.D.), 50 Feet
947433	BMDP72E77SSP150	72 Fiber, 50/125 µm (2000/500 MHz) GIGAlite-10 Multimode, Aqua Jacket, MTP Female with 3.0mm Round, 39" Break-Out,
		MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.), 150 Feet
825451	BMDP12E77SSP050	12 Fiber, 50/125 μm (2000/500 MHz) GIGAlite-10 Multimode, Aqua Jacket, MTP Female with 3.0mm Round, 39" Break-Out,
		MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (1.3" 0.D.), 50 Feet
947435	BMDP72XLLSSP150	72 Fiber, Premium Low Loss (0.35 dB MTP connector pair loss), 50/125 µm (4900/500 MHz) GIGAlite-10XBm, Multimode, Aqua Jacket,
		MTP Female with 3.0mm Round, 39" Break-Out, MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (1.3" 0.D

NOTE: Additional lengths available for Pre-Terminated Trunk Assemblies; contact your local CSC Representative for details and available options, or visit www.berktek.com/teklab to configure assemblies to your specification.

(continued)...













CSC PART NO.	MFR. PART NO.	DESCRIPTION
Adventum —	Plenum	
947432	BLTP72X77SSP150	72 Fiber, 50/125 μm (4900/500 MHz) GIGAlite-10XB Multimode, Aqua Jacket, MTP Female with 3.0mm Round,
		39" Break-Out, MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.)
947428	BLTP12X77SSP050	12 Fiber, 50/125 μm (4900/500 MHz) GIGAlite-10XB Multimode, Aqua Jacket, MTP Female with 3.0mm Round,
		39" Break-Out, MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (1.3" O.D.)
947430	BLTP72E77SSP150	72 Fiber, 50/125 μm (2000/500 MHz) GIGAlite-10 Multimode, Aqua Jacket, MTP Female with 3.0mm Round,
		39" Break-Out, MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.)
804890	BLTP12E77SSP050	12 Fiber, 50/125 μm (2000/500 MHz) GIGAlite-10 Multimode, Aqua Jacket, MTP Female with 3.0mm Round,
		39" Break-Out, MTP Female with 3.0mm Round, 39" Break-Out, Standard PE Pulling End Only — (1.3" O.D.)
947431	BLTP72X74SFP150	72 Fiber, 50/125 μm (4900/500 MHz) GIGAlite-10XB Multimode, Aqua Jacket, MTP Female with 3.0mm Round,
		39" Break-Out, LC/PC with Duplex Clip with 2.0mm Furcation, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.)
947429	BLTP72E74SFP150	72 Fiber, 50/125 μm (2000/500MHz) GIGAlite-10 Multimode, Aqua Jacket, MTP Female with 3.0mm Round, 39" Break-Out,
		LC/PC with Duplex Clip with 2.0mm Furcation, 39" Break-Out, Standard PE Pulling End Only — (2" O.D.)
Horizontal Int	erconnect (tight buffer)	Plenum
772874	ICP002EB3010/25	EB (OM3), 2 Fiber, 2000/500 MHz-km (850nm/1300nm) Bandwidth-EMB
875404	ICP004EB3010/25	EB (OM3), 4 Fiber, 4900/500 MHz-km (850nm/1300nm) Bandwidth-EMB
845478	ICP002XB3010/X5	XB (0M4+), 2 Fiber, 2000/500 MHz-km (850nm/1300nm) Bandwidth-EMB
845479	ICP004XB3010/X5	XB (0M4+), 4 Fiber, 4900/500 MHz-km (850nm/1300nm) Bandwidth-EMB
Premise Distri	bution (tight buffer) Ris	er
773221	PDR006EB3010/25	EB (OM3), 6 Fiber, 2000/500 MHz-km (850nm/1300nm) Bandwidth-EMB
947441	PDR0012EB3010/25	EB (0M3), 12 Fiber, 4900/500 MHz-km (850nm/1300nm) Bandwidth-EMB
948184	PDR006XB3010/X5	XB (0M4+), 6 Fiber, 2000/500 MHz-km (850nm/1300nm) Bandwidth-EMB
947442	PDR0012XB3010/X5	XB (0M4+), 12 Fiber, 4900/500 MHz-km (850nm/1300nm) Bandwidth-EMB
	oor/Outdoor (loose tube	
788497	LTR0X024EB3010/25	Vi ili
947437	LTR0X048EB3010/25	
947436	LTR0X024XB3010/X5	Vi (I)
947438	LTR12B048XB3010/X	5 XB (0M4+), 48 Fiber, 4900/500 MHz-km (850nm/1300nm) Bandwidth-EMB



"We needed a solution that could give us maximum distance with low insertion-loss. The Secure(it) Solutions Guide helped us find that choice among multiple solutions."







#### LANscape® Pretium® Evolved-Density, Growth-Enabled (EDGE) Solutions

#### **CORNING**









Corning Cable Systems' LANscape Pretium Evolved-Density, Growth-Enabled (EDGE) Solutions are high-density pre-terminated optical cabling solutions that simplify installation and improve performance in the data center environment. Pretium EDGE Solutions, a complement to the Plug & Play™ Systems product family, provide increased system density when compared to traditional pre-terminated systems and offer the highest port density in the market. Custom-engineered components enable simple integration into common SAN directors, while the pre-terminated components allow for reduced installation time and faster moves, adds, and changes (MACs).

Corning Cable Systems' factory-terminated solutions provide improved system performance, ensure component compatibility, and yield consistent quality. Pretium EDGE Solutions consist of optical trunks and extender trunks, modules, harnesses, housings, and jumpers. Enabled by reduced cable diameters and Corning® ClearCurve® optical fiber, the trunks and extender trunks have an innovative pulling grip to increase the speed of deployment while offering superior protection of the assembly. Trunk furcation integrates inside of the hardware via a push-lock style cradle to create a rapid, one-hand strain-relief system.

The universal wired modular system components enable fast and simple networking moves, adds, and changes with none of the polarity concerns associated with special polarity-compensating components.

#### Installing the System

There is no time-consuming fiber preparation and termination as found in traditional field installations. There are no consumables or piece parts and no tools are required other than a screwdriver for installation of hardware. Zero scrap equals more accurate cost estimating, and system performance is guaranteed. Pre-terminated trunk cabling systems constructed with a factory-installed protective pulling grip are routed through the cabling

pathways and spaces. Once deployed, the pulling grip is removed and the exposed connectors on both ends are plugged into patch panels or system equipment. High-density MTP® Connector-based trunk systems plug into breakout modules or harnesses for a simple, fast, modular solution with easy scalability. Modules and harnesses conveniently load into Pretium EDGE Solutions hardware, and correct fiber polarity is guaranteed throughout the systems' link.

With Corning Cable Systems LANscape Pretium EDGE Solutions, there are only four steps required to install the optical network:

- Pull the cable assembly
- Plug in the connectors
- · Mount the hardware
- Test the system

Pretium EDGE Solutions products are packaged in up to 60% recycled material, and the packaging is 100% recyclable.

#### **Features & Benefits**

- Revolutionary drawer-style hardware offers unprecedented finger access while achieving the highest port density in the market
- High-density trunk cables allow tighter trunk cable bends for slack storage and routing
- Low insertion loss performance allows for more connections in a link when deploying a TIA-942 compliant system
- Connector modules enable fiber modularity while offering both front- and rear-loading capability
- Shuttered modules create one-hand operation while eliminating need to keep up with dust caps

#### **Pretium EDGE Solutions Modules**

CSC PART NO.	MFR. PART NO.	DESCRIPTION
864136	ECM-UM12-05-93T	12 Fiber LC Duplex to MTP (pinned), Multimode, Pretium 300 Solutions with Corning ClearCurve Optical Fiber
865127	ECM-UM12-05-93Q	12 Fiber LC Duplex to MTP (pinned), Multimode, Pretium 550 Solutions with Corning ClearCurve Optical Fiber
865128	ECM-UM12-04-89G	12 Fiber LC Duplex to MTP (pinned), Singlemode Ultra-Bendable Fiber

#### **Pretium EDGE Solutions MTP Connector Panels**

CSC PART NO.	MFR. PART NO.	DESCRIPTION
864137	EDGE-CP24-E3	24 Fiber MTP Connector Panel, Aqua Adapter for Pretium 300 or 550 Solutions
865134	EDGE-CP24-90	24 Fiber MTP Connector Panel, Black Adapter for Ultra-Bendable Singlemode Solutions

#### **Pretium EDGE Solutions Housings**

MFR. PART NO.	DESCRIPTION
EDGE-04U	4U Pretium EDGE Solutions Housing, Rack Mount
EDGE-01U	1U Pretium EDGE Solutions Housing, Rack Mount
EDGE-STRN1-10	Replacement Pretium EDGE Solutions Trunk Strain-Relief Bracket for Size 1 (12 to 36 fiber MTP Connector Trunks), 10 Pack
EDGE-STRN2-10	Replacement Pretium EDGE Solutions Trunk Strain-Relief Bracket for Size 2 (48 to 144 fiber MTP Connector Trunks), 10 Pack
EDGE-DBLSTRN1-10	Double-Stack Pretium EDGE Solutions Trunk Strain-Relief Bracket for Size 1 (12 to 36 fiber MTP Connector Trunks),
	Each Bracket Holds 2 Trunks, 10 Pack
2104466-01	MTP Connector Cleaning Tool
CLEANER-PORT-LC	LC Connector Cleaning Tool
	EDGE-04U EDGE-01U EDGE-STRN1-10 EDGE-STRN2-10 EDGE-DBLSTRN1-10 2104466-01

(continued)...

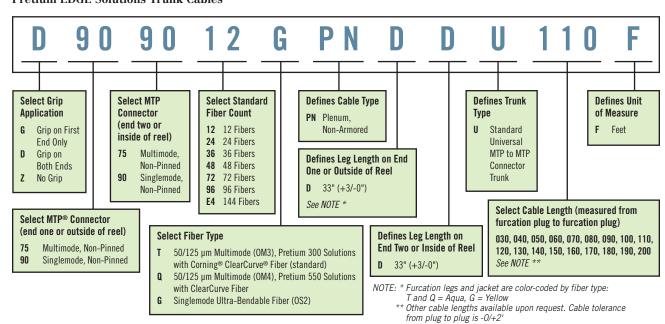




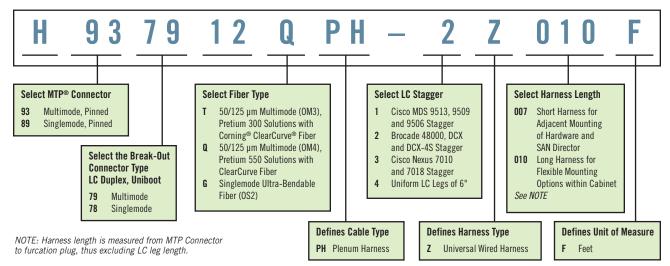
CORNING

LANscape® Pretium® Evolved-Density, Growth-Enabled (EDGE) Solutions (continued)

#### Pretium EDGE Solutions Trunk Cables



#### **Pretium EDGE Solutions Harnesses**



#### **Pretium EDGE Solutions Jumpers**

CSC PART NO.	MFR. PART NO.	DESCRIPTION
865140	E797902TD120003F	2 Fiber LC Uniboot/LC Uniboot Multimode Pretium EDGE Solutions Jumper, OFNR (riser) 2.0mm Interconnect Cable,
		Pretium 300 Solutions with Corning ClearCurve Optical Fiber, 3'
865141	E797902TD820003F	2 Fiber LC Uniboot/LC Uniboot Multimode Pretium EDGE Solutions Jumper, OFNP (plenum) 2.0mm Interconnect Cable,
		Pretium 300 Solutions with Corning ClearCurve Optical Fiber, 3'
865142	E797902QD120003F	2 Fiber LC Uniboot/LC Uniboot Multimode Pretium EDGE Solutions Jumper, OFNP (plenum) 2.0mm Interconnect Cable,
		Pretium 550 Solutions with Corning ClearCurve Optical Fiber, 3'
865143	787802GD120003F	2 Fiber LC Uniboot/LC Uniboot Singlemode Pretium EDGE Solutions Jumper, OFNR (riser) 2.0mm Interconnect Cable,
		Singlemode Ultra-Bendable Fiber, 3'
865144	787802GD820003F	2 Fiber LC Uniboot/LC Uniboot Singlemode Pretium EDGE Solutions Jumper, OFNP (plenum) 2.0mm Interconnect Cable,
		Singlemode Ultra-Bendable Fiber, 3'

NOTE: Additional lengths are available; contact your local CSC Representative for ordering information.







#### Plug & Play™ Universal Systems

Corning Cable Systems Plug & Play™ Universal Systems are preterminated fiber optic cabling systems for use in data center LAN/SAN, building backbone, and FTTD applications.

#### **Features**

- Universal-wired modular system components enable moves, adds, and changes without polarity concerns and provide a simple migration path between 2 fiber and parallel optics applications
- Trunks terminated with MTP® Connectors provide space savings and rapid deployment with minimal error
- The module's integral shutter system opens internally to the adapter, allowing single-handed connector insertion and removal
- System length is expandable by using Plug & Play™ Universal Systems extender trunks
- Modules and harnesses are wired the same to simplify system assembly

#### Benefits

- Corning® ClearCurve® OM3/OM4 fiber offers enhanced bend performance, allowing tighter cable routing without negatively impacting system performance
- Standard and low-loss components provide a means of meeting increasingly stringent network performance requirements
- 100G-ready performance ensures product will meet the requirements of 100G Ethernet applications
- · Maximum skew of 0.75 ns
- Factory-terminated solutions provide improved system performance, ensure component compatibility, and yield consistent quality

NOTE: Contact your local CSC Representative for ordering information and product configuration.

#### Plug & Play<sup>™</sup> AnyLAN<sup>™</sup> Systems

Corning Cable Systems Plug & Play $^{\text{\tiny{M}}}$  AnyLAN $^{\text{\tiny{M}}}$  Systems are preterminated LAN cabling solutions with the flexibility to be configured in various network topologies for indoor and outdoor environments.

#### **Features**

- Preterminated cabling solution
- Factory tested
- Flexibility for various network options
- Shipped as a complete solution
- Complimentary engineering services

#### Benefits

- Quick, reliable installation up to 50% faster per splice or termination point
- Installs either direct buried or aerial for OSP applications
- Inside plant (riser) version installs within a 2" duct
- Lower labor costs
- Plan and design the system

NOTE: Contact your local CSC Representative for ordering information and product configuration.

#### **CORNING**



1/11/1







#### Pre-Stubbed Access Points or Zone Boxes:



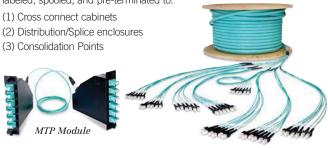
Fibertron's Pre-Stubbed Access Points and Zone Boxes drastically reduce installation time and complexity for customers — especially for dense fiber deployments or construction/renovation projects with accelerated schedules. Customers can choose the type, manufacturer,

Fibertron will terminate, test, and install connectors from one end of the optical cable into the Access Point or Zone Box of the customer's choice. The remainder of the cable assembly is wrapped around a reel and the hardware is secured to the top for transport to the jobsite. Once at the jobsite, installation is as simple as (1) pull the cable, and (2) install the pre-stubbed enclosure in the red/black equipment room or in the SCIF/work center and the installation is complete — minimizing disruption to sensitive or secure areas or the need to escort un-cleared contractors for days on end.

#### PLUG-N-PLAY Solutions



Fibertron's PLUG-N-PLAY solution is the ultimate solution for cutting training costs, installation labor hours, and overall job costs on secure network deployments. Completely engineered for each individual project, PLUG-N-PLAY Solutions consist of multi-fiber distribution or OSP cables labeled, spooled, and pre-terminated to:



NOTE: Fibertron products are completely customized for each project to precisely match field requirements. As a result, Fibertron issues part numbers when the design is completed after an order is placed. Fibertron's experience working in the classified government arena is unsurpassed. Contact the Secure(it) Team for product configuration, part numbers, and pricing.

#### 3.3 Cable Component Identification

В	1	2
<u> </u>		

















#### EX: B12AB-7373-100FS

=  $62.5/125 \mu m$  MM, 12 Fiber, Interlocking Armored OFCP Breakout Tubing, SC-SC Ceramic Duplex, 100' Long

#### Position 1 - Fiber Size

- $A = 50/125 \mu m (MM)$
- $B = 62.5/125 \,\mu\text{m} \,(MM)$
- $C = 100/140 \, \mu m \, (MM)$
- **D** = Singlemode (SM)
- $\mathbf{E} = 0$ ther
- $S = 50/125 \mu m \ 10 GIG (MM)$
- $\mathbf{F} = 50/125 \, \mu \text{m} \, 10 \text{GIG} \, 550 \, (\text{MM})$
- **H** = Bend Insensitive

#### Position 2 – No. Per Fiber

**01-288** = Ninety Nine Fibers

#### Position 4 – Connection Type Inside End

#### Position 5 — Connection Type Outside End

#### Position 6 – Assembly Length

For lengths exceeding three digits, drop first dash

#### Position 7 – Unit of Measure

 $\mathbf{F} = \text{Feet}$ 

 $\mathbf{M} = \mathsf{Meters}$ 

I = Inches

#### Position 8 – Other Options

**S** = Pulling Sheath

 $\mathbf{C}$  = Pulling Sheath on both ends

#### Position 3 – Cable Design\*

ı	4 =	Interl	ocki	ng <i>F</i>	\rmo	red	OF(	Ĵ۲
1	B =	Inter	locki	ng A	٩rm٥	red	0F	CF

- **C** = OFNP 250 micron
- **E** = Indoor/Outdoor TB OFNP
- **F** = Indoor/Outdoor TB OFNR
- $\mathbf{G} = 1$  Fiber OFNR
- $\mathbf{H} = 1$  Fiber OFNP
- J = 1 Fiber Unjacketed
- **K** = Zipcord OFNR
- L = Zipcord OFNP
- N = Breakout OFNR
- 0 = Breakout OFNP P = Non-breakout OFNR
- **Q** = Non-breakout OFNP
- **R** = Loosetube Non-armored
- S = Loosetube OFNP
- T = Loosetube Armored
- **U** = Riser rated loosetube non-armored
- **V** = Riser rated loosetube armored
- $\mathbf{W} = \text{Low smoke zero halogen}$
- $\mathbf{X} = \text{Tactical}$
- $\mathbf{Y} =$ Self-supporting loosetube
- **Z** = Figure 8 loosetube
- \*Add 2 for 1.6/2mm cable (1 & 2 fiber), Add B for breakout tubing (2 fiber and above), Add R for ribbon style fiber.

M - Military Part Reference

R – Receptacle

- Plug

#### Connector Types – Positions 4 and 5

OUIII	iccioi typos i ositions	T allu	•		
20	905 SMA Metal	MM	71	SC Ceramic	MM
21	906 SMA Metal	MM	73	SC Ceramic Duplex	MM
31	ST Ceramic	MM	7U	SC Ultra Polish	SM
3U	ST Ultra Polish	SM	-	(-55dB or Better)	
••	(-55dB or better)	OIII	7A	SC Angled	SM
52	FC	MM		(-65dB or better)	
5U	FC Ultra Polish	SM	80**	MTP (without pins)	MM
30	(-55dB or better)	JIVI	81**	MTP (with pins)	MM
5A	FC Angled	SM	82**	MTP (without pins)	SM
JA	(-65dB or better)	JIVI	83**	MTP (with pins)	SM
CII	· · · · · · · · · · · · · · · · · · ·	CM			
6U	D4 Ultra Polish	SM	84	MTRJ (without pins)	MM
0.4	(-55dB or better)	B 4B 4	85	MTRJ (with pins)	MM
64	LC	MM	86	MTRJ (without pins)	SM
65U	LC Simplex Ultra Polish	SM	87	MTRJ (with pins)	SM
	(-55dB or better)		90	Mil. 38999 Socket	MM/SM
65A	LC Simplex Angle Polish	SM	92	Mil. 38999 Pin)	MM/SM
	(-65dB or better)		96	28876 Socket	MM/SM
67U	LC Duplex Ultra Polish	SM	97	28876 Pin	MM/SM
	(-55dB or better)		98	Special	MM/SM
67A	LC Angle Polish Duplex	SM	99	TFOCA I-II-111	
	(-65dB or better)		99R	Receptacle	
68	LC Unibody Duplex	MM	99P	Plug	
69U	LC Unibody Ultra Polish Duplex	SM			NANA (ONA
	(-55dB or better)		00	Pig Tail	MM/SM

<sup>\*\*</sup>Add C for Cross, Add F for Flipped, or Add S for Straight







#### OuickNet<sup>™</sup> Cable Assemblies

The Panduit® QuickNet™ Copper Cabling System provides a custom, pre-terminated cabling solution. Fast and simple to install, the system enables quick network deployment, increased reliability, and lower total cost of ownership as compared to field terminated solutions.

#### PANDUIT<sup>®</sup>

#### **Features**

- Pre-terminated
- Available in a wide range of cable types, performance levels, termination configurations, and custom lengths
- · 100% factory tested
- Shielded cable assemblies available
- · Pre-terminated cassettes

#### **Benefits**

- Controlled factory environment provides consistent network performance while reducing installation time and on-site waste
- Eliminates the time and cost associated with on-site testing and ensures verified performance
- Category 6A UTP/STP and Category 6 UTP performance levels available in plenum or riser cable flame ratings
- Cable assemblies allow customization, including pre-terminated cassettes, jack modules, modular plugs, plug packs, and/or unterminated cable options, to provide design flexibility for all installations in lengths from 10–295'
- Snap in and out of QuickNet<sup>™</sup> Patch Panels includes integral release tab to ensure easy on-site moves, adds, and changes



GOU PART NU.	MIFK. FAKT NU.	DESCRIPTION
947585	QZPBCBCBXX10	Category 6A UTP, Plenum, Blue Cable, Cassette to Cassette, Blue Jacks Assembly — $10^\circ$
NOTE: For all cate	egory, cable type, col	or, termination configuration, and length options, contact your local CSC Representative.

The invitation-only **Government Partner**Network (GPN) was developed to assist a select group of contractors in identifying and WINNING federal, state and local government opportunities. The Secure<sup>(it)</sup> Partners bring a level of expertise specifically for the DoD and Intelligence Communities. Contact your CSC Government Specialist to learn how you can become a Secure<sup>(it)</sup> certified contractor TODAY!

1.800.586.3098







# **Industry-Leading Manufacturers...**





















# The solutions featured on pages 30–62 include:

- 10G Copper
- ISP/OSP Solutions
- Interlocking/Ribbon/Shielded
- Tactical Cable

# Fiber Optic/ Copper Cable

Fiber Optic	.30–43
UTP/FTP Copper	.44–57
Low-Voltage Cables	45
Factory-Terminated	58-62









#### Fiber Express Distribution Series

Fiber Express Optical Fiber Distribution Cables are designed for low-to-high fiber count in-building installations. They offer a high degree of flexibility for backbone and horizontal applications. These cables are made with 900  $\mu$ m tight buffered fiber and are available in multimode 62.5  $\mu$ m and 50  $\mu$ m, singlemode enhanced, or a combination of two types of fiber (composite), if required. All distribution cables are riser OFNR/FT4, plenum OFNP/FT6, or LSZH rated.



CSC PART NO.	MFR. PART NO.	DESCRIPTION
829294	B9A038	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 4 Fibers
829295	B9A039	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 6 Fibers
829296	B9A042	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 12 Fibers
829297	B9A602	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 24 Fibers
829298	B9A606	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 48 Fibers
829912	B9A609	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 72 Fibers
829914	B9A619	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM2, 50 μm, 144 Fibers
829299	B9A044	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 μm, 4 Fibers
829300	B9A045	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 μm, 6 Fibers
829301	B9A048	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 μm, 12 Fibers
829302	B9A612	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 μm, 24 Fibers
829303	B9A616	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 µm, 48 Fibers
829915	B9A620	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 μm, 72 Fibers
829914	B9A619	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM2, 50 µm, 144 Fibers
829916	B9C038	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM3, 50 μm, 4 Fibers
829917	B9C039	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM3, 50 μm, 6 Fibers
829918	B9C042	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, 0M3, 50 μm, 12 Fibers
829919	B9C602	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, 0M3, 50 μm, 24 Fibers
829920	B9C606	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, OM3, 50 μm, 48 Fibers
829921	B9C609	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, 0M3, 50 μm, 72 Fibers
829922	B9C619	Distribution Riser Series UL OFNR/CSA FT4 — Multimode, 0M3, 50 μm, 144 Fibers
829304	B9C044	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 4 Fibers
829305	B9C045	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 6 Fibers
829306	B9C048	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 12 Fibers
829307	B9C612	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 24 Fibers
829308	B9C616	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 48 Fibers
829923	B9C620	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 μm, 72 Fibers
829922	B9C619	Distribution Plenum Series UL OFNP/CSA FT6 — Multimode, OM3, 50 µm, 144 Fibers

NOTE: Alternative fiber counts are available; breakout Series also available; also available in  $62.5/125 \, \mu m$  and Singlemode; contact your local CSC Representative.

#### Fiber Express Interconnect Cable Series

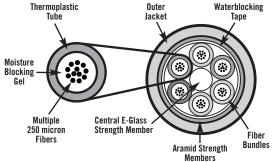
Fiber Express Optical Fiber Interconnect Cables are designed for low fiber-count premises environments. They are small and very flexible, making them ideal for confined spaces. Their aesthetic appearance makes these cables suitable for use in open office environments.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
829326	B9A002	InterConnect Riser Series, UL OFNR/CSA FT4 — Multimode, OM2, 50 µm, 2 Fibers, Orange
829328	B9A004	InterConnect Plenum Series, UL OFNP/CSA FT6 — Multimode, OM2, 50 µm, 2 Fibers, Orange
829329	B9C002	InterConnect Riser Series, UL OFNR/CSA FT4 — Multimode, OM3, 50 µm, 2 Fibers, Aqua
829330	B9C004	InterConnect Plenum Series, UL OFNP/CSA FT6 — Multimode, OM3, 50 µm, 2 Fibers, Aqua

NOTE: Also available in 62.5/125µm and Singlemode; contact your local CSC representative.

#### Fiber Express Indoor/Outdoor Riser Series

# Fiber Bundle Detail Thermoplastic



CSC PART NO.	MFR. PART NO.	DESCRIPTION
829340	B9A810	Multimode, OM2, 50 μm, 6 Fibers
829341	B9A811	Multimode, OM2, 50 μm, 12 Fibers
829390	B9A812	Multimode, OM2, 50 μm, 24 Fibers
829934	B9A814	Multimode, OM2, 50 μm, 48 Fibers
829935	B9A817	Multimode, OM2, 50 μm, 144 Fibers
829342	B9C810	Multimode, OM3, 50 μm, 6 Fibers
829343	B9C811	Multimode, OM3, 50 μm, 12 Fibers
829936	B9C812	Multimode, OM3, 50 μm, 24 Fibers
829937	B9C814	Multimode, OM3, 50 μm, 48 Fibers
829938	B9C817	Multimode, OM3, 50 μm, 144 Fibers

NOTE: UL®, UV Rated, all dielectric, OFNR/CSA FT4. Alternative fiber counts and armored versions available; also available in 62.5/125  $\mu$ m and Singlemode; contact your local CSC Representative.

#### FiberExpress also available in the following series:

Breakout, Shipboard, Interlock Armor, Loose Tube Indoor/Outdoor, Loose Tube Campus, Loose Tube Armored, Loose Tube Plenum, Central Tube Outdoor and Outdoor Armored, Micro Loose Tube, Tray, and Tactical — Also available: Fiber Optic Pre-Terminated Cabling System.





#### Premise Distribution Cable Series

Berk-Tek's tight buffered, fiber optic cable is designed for installation in riser/plenum environments and horizontal and intrabuilding backbone structures. Available with standard multimode, singlemode, and GIGAlite™ fiber.





#### **Features**

- Flexible, small diameter, 900 µm tight buffered construction
- · High tensile strength and small diameter design
- Six- to 144-count fiber construction designs ideal for horizontal and backbone installation
- · Singlemode, multimode, and hybrid designs available
- RoHS Compliant; also available in low-smoke zero halogen design

#### Benefits

- Cost-saving design, easy to install and terminate
- Assurance that cables will meet required specifications for the latest communication networking applications
- Provides for greater pulling distances, thus reducing installation time
- Supports common optical networking applications, including 1000BaseSX/LX and 10GBase-SR/LX4
- Broad design selection enables mix and match of fiber components to specific networking applications

CSC PART NO.	MFR. PART NO.	DESCRIPTION
481324	PDR006CB3510/25	Standard 62.5/125 MMF OFNR Indoor — Non-Plenum, 6 Fiber
305199	PDR012CB3510/25	Standard 62.5/125 MMF OFNR Indoor — Non-Plenum, 12 Fiber
712251	PDR024CB3510/25	Standard 62.5/125 MMF OFNR Indoor — Non-Plenum, 24 Fiber
773222	PDR006LB3010/75	GIGAlite 50/125 MMF OFNR Indoor — Non-Plenum, 6 Fiber
773223	PDR012LB3010/75	GIGAlite 50/125 MMF OFNR Indoor — Non-Plenum, 12 Fiber
773272	PDR024LB3010/75	GIGAlite 50/125 MMF OFNR Indoor — Non-Plenum, 24 Fiber
773221	PDR006EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNR Rated — Non-Plenum, 6 Fiber
773072	PDR012EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNR Rated — Non-Plenum, 12 Fiber
773019	PDR024EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNR Rated — Non-Plenum, 24 Fiber
768443	PDR006AB0707	Singlemode OFNR Indoor — Non-Plenum, 6 Fiber
770989	PDR012AB0707	Singlemode OFNR Indoor — Non-Plenum, 12 Fiber
773018	PDR024AB0707	Singlemode OFNR Indoor — Non-Plenum, 24 Fiber
407401	PDP006CB3510/25*	Standard 62.5/125 MMF OFNP Rated — Plenum, 6 Fiber
491329	PDP012CB3510/25*	Standard 62.5/125 MMF OFNP Rated — Plenum, 12 Fiber
737560	PDP024CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 24 Fiber
773088	PDP006LB3010/75	GIGAlite 50/125 MMF OFNP Rated — Plenum, 6 Fiber
772397	PDP012LB3010/75	GIGAlite 50/125 MMF OFNP Rated — Plenum, 12 Fiber
772996	PDP024LB3010/75	GIGAlite 50/125 MMF OFNP Rated — Plenum, 24 Fiber
772655	PDP006EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNP Rated — Plenum, 6 Fiber
773089	PDP012EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNP Rated — Plenum, 12 Fiber
772994	PDP024EB3010/25	GIGAlite-10, 50/125 MMF OM3 OFNP Rated — Plenum, 24 Fiber
772946	PDP006AB0707	Singlemode OFNP Rated — Plenum, 6 Fiber
768958	PDP012AB0707	Singlemode OFNP Rated — Plenum, 12 Fiber
779148	PDP024AB0707	Singlemode OFNP Rated — Plenum, 24 Fiber

 $\label{thm:continuous} \begin{tabular}{ll} Transmission Performance: Multimode @ 850/1300 nm — Standard 62.5/125: 1GbE/300/600; GIGAlite 50/125: 1GbE/750/600, 10GbE 150/300; GIGAlite-10 50/125: 1GbE/1000/600, 10GbE 300/300; Singlemode @ 1310/1550 nm — 1GbE/5Km. \\ *- add "-BOX" to MFR. PART NO. for 1,000' Reel-in-a-Box option. \\ \end{tabular}$ 







#### ArmorTek™ Interlocking Armor Cable Series

Berk-Tek's Armor-Tek interlocking armored fiber cables consist of a standard tight buffered or loose tube fiber cable with an aluminum or steel spirally wrapped armor encasing it. The cable is then covered with a plenum- or riser-rated jacket.









#### **Features**

- Jacketed armor that remains flexible due to the spiral wrap armoring process
- Aluminum interlock offers 10–13 times the crush resistance of a standard fiber cable
- Steel interlock offers 12–19 times the crush resistance of a standard fiber cable
- · RoHS Compliant; high tensile strength for installation of cable
- Compact outside diameters when compared to plenum innerduct or conduit

#### **Benefits**

- No need for conduit or innerduct when installing the interlocked armor cable, provides significant savings in materials and labor
- The armored design enables easy one-pull installation into any environment
- Extremely durable cables for hazardous environments or difficult cable installations
- Installation time can be reduced by as much as 80% versus installing conduit or innerduct
- Accommodates last minute relocations or pathway changes unlike innerduct or conduit that does not provide a flexible alternative

CSC PART NO.	MFR. PART NO.	DESCRIPTION
540920	PDPK006CB3510/25	Standard 62.5/125 MMF OFNP Rated — Plenum, 6 Fiber
491331	PDPK012CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 12 Fiber
702326	PDPK024CB3510/25	Standard 62.5/125 MMF OFNP Rated — Plenum, 24 Fiber
702353	PDPK12B048CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 48 Fiber
702355	PDPK12B072CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 72 Fiber
702357	PDPK12B144CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 144 Fiber
773207	PDPK006LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 6 Fiber
773211	PDPK012LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 12 Fiber
773218	PDPK024LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 24 Fiber
705021	PDPK12B048LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 48 Fiber
705023	PDPK12B072LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 72 Fiber
705024	PDPK12B144LB3010/75	GIGALite 50/125 MMF OFNP Rated — Plenum, 144 Fiber
773199	PDPK006EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 6 Fiber
773209	PDPK012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 12 Fiber
702328	PDPK12B024EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 24 Fiber
800753	PDPK12B048EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 48 Fiber
776315	PDPK12B072EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 72 Fiber
827117	PDPK12B144EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 144 Fiber
772803	PDPK006AB0707	Singlemode OFNP Rated — Plenum, 6 Fiber
772804	PDPK012AB0707	Singlemode OFNP Rated — Plenum, 12 Fiber
772844	PDPK024AB0707	Singlemode OFNP Rated — Plenum, 24 Fiber
772848	PDPK12B048AB0707	Singlemode OFNP Rated — Plenum, 48 Fiber
772849	PDPK12B072AB0707	Singlemode OFNP Rated — Plenum, 72 Fiber
772850	PDPK12B144AB0707	Singlemode OFNP Rated — Plenum, 144 Fiber

Transmission Performance: Multimode @ 850/1300 nm -- Standard 62.5/125: 1GbE/300/600; GIGAlite 50/125: 1GbE/750/600, 10GbE 150/300; GIGAlite 10 50/125: 1GbE/1000/600, 10GbE 300/300; Singlemode @ 1310/1550 nm -- 1GbE/5Km.





#### Tactical Fiber Cable

Tactical Fiber Cables have a rugged, crush-resistant jacket and superior flexibility. Able to withstand the harshest conditions, they're great for field-deployable and retrievable uses, like military, industrial, or video coverage.

#### **Features**

- Petrochemical, heavy industrial, mining, and other harsh environments
- · Military, law enforcement, and tactical security applications
- Distribution style available from 2-4 fibers
- · Outdoor use, nonflame-rated cable
- Heavy-duty break-out style available from 2–12 fibers





#### Benefits

- Rugged, durable jacket
- Superior flexibility in cold temperatures
- Available with optional radiation-hardened optical fibers
- Excellent for field deployable/retrievable applications such as news/sports coverage
- Tight buffered design enables direct connector termination

CSC PART NO.	MFR. PART NO.	DESCRIPTION
737951	TFC004CB3510/25	Standard 62.5/125 MMF Distribution — 4 Fiber
773233	TFC004LB3010/75	GIGAlite 50/125 MMF Distribution — 4 Fiber
773232	TFC004EB3010/25	GIGAlite-10, 50/125 LOMF OM3 Distribution — 4 Fiber
737950	TFC004AB0707	Singlemode Distribution — 4 Fiber
827192	TFHD006CB3510/25	Standard 62.5/125 MMF Breakout, 2mm Subs — 6 Fiber
827193	TFHD012CB3510/25	Standard 62.5/125 MMF Breakout, 2mm Subs — 12 Fiber
827195	TFHD006LB3010/75	GIGAlite 50/125 MMF Breakout, 2mm Subs — 6 Fiber
827196	TFHD012LB3010/75	GIGAlite 50/125 MMF Breakout, 2mm Subs — 12 Fiber
827198	TFHD006EB3010/25	GIGAlite-10, 50/125 LOMF OM3 Breakout, 2mm Subs — 6 Fiber
827199	TFHD012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 Breakout, 2mm Subs — 12 Fiber
827201	TFHD006AB0707	Singlemode Breakout, 2mm Subs — 6 Fiber
827202	TFHD012AB0707	Singlemode Breakout, 2mm Subs — 12 Fiber

Transmission Performance: Multimode @ 850/1300 nm — Standard 62.5/125: 1GbE/300/600: GIGAlite 50/125: 1GbE/750/600. 10GbE 150/300: GIGAlite-10 50/125: 1GbE/1000/600, 10GbE 300/300; Singlemode @ 1310/1550 nm — 1GbE/5Km.

#### Ribbon Cable

Berk-Tek optical fiber ribbon cable is a plenum-rated 12 fiber, singlemode or multimode optical fiber ribbon with a protective aramid strength member layer and outer jacket.

- · Singlemode or multimode optical fiber
- · Protective UV-cured acrylate coating
- Aramid strength members
- Low-Smoke zero halogen construction available
- Qualified to ICEA S-83-596 and Telcordia GR-409



#### **Benefits**

- Easily interfaced to MT and MTP based connectors as well as today's newest ribbon connectors
- Small size equals high-density packing in equipment racks and/or telecommunications closets
- Plenum rating covers all flame rating specifications
- Cable design offers excellent mechanical performance with superior crush and flex ratings
- Low-friction, highly flexible jacket material facilitates easy routing in tight, high-density terminations

CSC PART NO.	MFR. PART NO.	DESCRIPTION
736630	RDP012CB3510/25	Standard 62.5/125 MMF OFNP Rated — Plenum, 12 Fiber
736632	RDP012LB3010/75	GIGAlite 50/125 MMF OFNP Rated — Plenum, 12 Fiber
736631	RDP012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 12 Fiber
736629	RDP012AB0707	Singlemode OFNP Rated — Plenum, 12 Fiber
827204	RDZ012CB3510/25	Standard 62.5/125 MMF OFN-LS Rated — LSZH, 12 Fiber
827206	RDZ012LB3010/75	GIGAlite 50/125 MMF OFN-LS Rated — LSZH, 12 Fiber
827207	RDZ012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFN-LS Rated — LSZH, 12 Fiber
827208	RDZ012AB0707	Singlemode OFN-LS Rated — LSZH. 12 Fiber

 $\begin{tabular}{ll} Transmission Performance: Multimode @ 850/1300 nm --- Standard 62.5/125: 1GbE/300/600; GIGAlite 50/125: 1GbE/750/600, 10GbE 150/300; GIGAlite 10 50/125: 1GbE/1000/600, 10GbE 300/300; Singlemode @ 1310/1550 nm --- 1GbE/5Km. \end{tabular}$ 





Adventum<sup>™</sup> Product Series (Loose Tube — Indoor/Outdoor)





## BERK-TEK

ADVENTUM cables are designed for outdoor, as well as riser and plenum environments. This gel-free cable uses the unique DryGel water-blocking system with super absorbent polymers, replacing the gel filler usually found inside Fiber tubes.

#### Features

- Designed to support 1 and 10 Gigabit Ethernet, Gigabit ATM, Fiber Channel, and other high-speed applications
- Riser or plenum rating enables installation to go directly from outside plant to riser shaft with no transition points
- Cable core and buffer tubes use a gel-free water-blocking system
- All-dielectric design; harsh environment construction available
- RoHS Compliant; available in 2–432 Fibers, includes armored designs

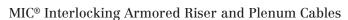
#### Benefit

- No cleaning of gels required for installation, greatly reduces installation time and cost
- Transition points in network are not needed
- · Heavy-duty cable is resistant to fuels
- System grounding requirements are eliminated
- Saves up to 26% in installed cost over traditional outside plant cables

CSC PART NO.	MFR. PART NO.	DESCRIPTION
518170	LTR006CB3510/25	Standard 62.5/125 MMF OFNR Rated — Non-Plenum, 6 Fiber
518171	LTR012CB3510/25	Standard 62.5/125 MMF OFNR Rated — Non-Plenum, 12 Fiber
788514	LTR0X024CB3510/25	Standard 62.5/125 MMF OFNR Rated — Non-Plenum, 24 Fiber
772644	LTR006LB3010/75	GIGAlite 50/125 MMF OFNR Rated — Non-Plenum, 6 Fiber
772649	LTR012LB3010/75	GIGAlite 50/125 MMF OFNR Rated — Non-Plenum, 12 Fiber
788511	LTR0X024LB3010/75	GIGAlite 50/125 MMF 0FNR Rated — Non-Plenum, 24 Fiber
772643	LTR006EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNR Rated — Non-Plenum, 6 Fiber
772647	LTR012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNR Rated — Non-Plenum, 12 Fiber
788497	LTR0X024EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNR Rated — Non-Plenum, 24 Fiber
829905	LTR006AB0403	Singlemode OFNR Rated — Non-Plenum, 6 Fiber
796122	LTR012AB0403	Singlemode OFNR Rated — Non-Plenum, 12 Fiber
801289	LTR0X024AB0403	Singlemode OFNR Rated — Non-Plenum, 24 Fiber
468752	LTP006CB3510/25	Standard 62.5/125 MMF OFNP Rated — Plenum, 6 Fiber
813454	LTP012CB3510/25	Standard 62.5/125 MMF OFNP Rated — Plenum, 12 Fiber
786481	LTP0X024CB3510/25	Standard 62.5/125 MMF 0FNP Rated — Plenum, 24 Fiber
772509	LTP006LB3010/75	GIGAlite 50/125 MMF 0FNP Rated — Plenum, 6 Fiber
772511	LTP012LB3010/75	GIGAlite 50/125 MMF 0FNP Rated — Plenum, 12 Fiber
788517	LTP0X024LB3010/75	GIGAlite 50/125 MMF 0FNP Rated — Plenum, 24 Fiber
736627	LTP006EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 6 Fiber
771987	LTP012EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 12 Fiber
772641	LTP12B024EB3010/25	GIGAlite-10, 50/125 LOMF OM3 OFNP Rated — Plenum, 24 Fiber
812196	LTP006AB0403	Singlemode OFNP Rated — Plenum, 6 Fiber
800445	LTP012AB0403	Singlemode OFNP Rated — Plenum, 12 Fiber
805020	LTP0X024AB0403	Singlemode OFNP Rated — Plenum, 24 Fiber

Transmission Performance: Multimode @ 850/1300 nm -- Standard 62.5/125: 1GbE/300/600; GIGAlite 50/125: 1GbE/750/600, 10GbE 150/300; GIGAlite-10 50/125: 1GbE/1000/600, 10GbE 300/300; Singlemode @ 1310/1550 nm -- 1GbE/5Km.





Corning Cable Systems MIC® Interlocking Armored Riser and Plenum Cables are designed for use in plenum, riser, and general-purpose environments for intra-building backbone and horizontal installations.

## **Features**

- Contains spirally-wrapped aluminum interlocking armor for ruggedness and superior crush resistance
- Individually jacketed TBII® Buffered Fibers enable easy stripping and facilitate termination
- Available in 50  $\mu m,\, OM1~\mu m,\, single mode,\, and hybrid versions$
- Available in plenum- and riser-rated constructions

## Benefits

- Offers more than seven times the crush protection compared to unarmored cables
- Reduces overall installation cost by allowing easy, one-step installation
- Meets ICEA 5-83-596 and Telcordia GR-409 test criteria and NEC® Article 770 requirements
- Available with Gigabit Ethernet and 10 Gigabit Ethernet performance

## **CORNING**





CSC PART NO.	MFR. PART NO.	DESCRIPTION	CSC PART NO.	MFR. PART NO.	DESCRIPTION
588570	006K81-31130-A1	6 Fiber Riser, 62.5 μm (OM1)	864968	006T88-31131-A3	6 Fiber Plenum, Standard 50 μm (OM2)
703535	012K81-33130-A1	12 Fiber Riser, 62.5 μm (OM1)	855390	012T88-33131-A3	12 Fiber Plenum, Standard 50 μm (OM2)
476097	024K81-33130-A1	24 Fiber Riser, 62.5 μm (OM1)	855393	024T88-33131-A3	24 Fiber Plenum, Standard 50 µm (OM2)
498078	006K88-31130-A3	6 Fiber Plenum, 62.5 μm (OM1)	796716	006E81-31131-A1	6 Fiber Riser, Singlemode (OS2)
498058	012K88-33130-A3	12 Fiber Plenum, 62.5 μm (OM1)	781397	012E81-33131-A1	12 Fiber Riser, Singlemode (OS2)
580269	024K88-33130-A3	24 Fiber Plenum, 62.5 μm (OM1)	796010	024E81-33131-A1	24 Fiber Riser, Singlemode (OS2)
855384	006T81-31131-A1	6 Fiber Riser, Standard 50 μm (OM2)	751205	006E88-31131-A3	6 Fiber Plenum, Singlemode (OS2)
855385	012T81-33131-A1	12 Fiber Riser, Standard 50 μm (OM2)	748531	012E88-33131-A3	12 Fiber Plenum, Singlemode (OS2)
864967	024T81-33131-A1	24 Fiber Riser Standard 50 µm (OM2)	748532	024F88-33131-A3	24 Fiber Plenum, Singlemode (OS2)

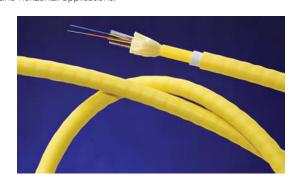
## MIC® DX Armored Riser and Plenum Cables

Corning Cable Systems MIC® DX Armored Riser and Plenum Cables are designed for use in riser, plenum, and general-purpose environments for intra-building backbone and horizontal applications.

## Features

- All-dielectric armor provides ruggedness and superior crush resistance without the conductive properties of traditional armor
- TBII® Buffered Fibers enable easy, consistent stripping and direct termination
- Available in OS2, OM1, OM2, OM3/OM4, and hybrid versions
- Available with 6–24 Fibers
- Plenum- and riser-rated constructions

- Requires no grounding or bonding while providing four times the crush protection compared to unarmored cables
- Ideal for heavy traffic or more challenging mechanical exposure conditions and applications requiring extra-rugged cables
- Easy armor removal provides increased safety and speed of installation
- Meets the application requirements of NEC® Article 770; ONFR/OFNP and FT-4/FT-6 listed
- Allows easy, one-step installation, reducing overall installation costs



CSC PART NO.	MFR. PART NO.	DESCRIPTION
864971	006K81-31130-D1	6 Fiber Riser, 62.5 μm (OM1)
864977	012K81-33130-D1	12 Fiber Riser, 62.5 μm (OM1)
864978	024K81-33130-D1	24 Fiber Riser, 62.5 μm (OM1)
864980	006T81-31131-D1	6 Fiber Riser, Standard 50 μm (OM2)
864981	012T81-33131-D1	12 Fiber Riser, Standard 50 µm (OM2)
864982	024T81-33131-D1	24 Fiber Riser, Standard 50 μm (OM2)
864983	006E81-31131-D1	6 Fiber Riser, OS2
864984	012E81-33131-D1	12 Fiber Riser, OS2
864985	024E81-33131-D1	24 Fiber Riser, OS2

CSC PART NO.	MFR. PART NO.	DESCRIPTION
864987	006K88-31130-D3	6 Fiber Plenum, 62.5 μm (OM1)
864988	012K88-33130-D3	12 Fiber Plenum, 62.5 μm (OM1)
864989	024K88-33130-D3	24 Fiber Plenum, 62.5 μm (OM1)
864990	006T88-31131-D3	6 Fiber Plenum, Standard 50 μm (OM2)
864991	012T88-33131-D3	12 Fiber Plenum, Standard 50 μm (OM2)
864992	024T88-33131-D3	24 Fiber Plenum, Standard 50 μm (OM2)
864993	006E88-31131-D3	6 Fiber Plenum, OS2
860660	012E88-33131-D3	12 Fiber Plenum, OS2
860661	024E88-33131-D3	24 Fiber Plenum, OS2





## FREEDM® One Interlocking Armored Plenum Cables

Corning Cable Systems FREEDM® One Interlocking Armored Plenum Cables are flame-retardant, indoor/outdoor cables for inter- and intra-building backbone applications.

### Features

- Flexible interlocking armor offers more than seven times the crush protection compared to unarmored cables
- Dry<sup>™</sup> Cable water-blocking technology for OSP applications
- UV-resistant, flame-retardant jacket is rugged, durable, and easy to strip
- Available in OS2, OM1, OM2, OM3/OM4, and hybrid versions
- Meets NFPA 262 requirements for plenum, riser, and general building applications

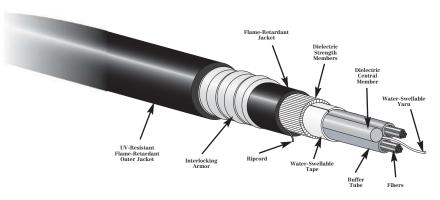
### enefits

- · Ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables
- Eliminates cable transition at the building entrance, reducing installation time and cost
- · Tight-buffered design eliminates the need for fan-out kits
- Meets the application requirements of NEC® Article 770; OFCP, CSA FT-4, and ICEA S-104-696 listed
- · Allows easy, one-step installation, reducing overall installation costs

CSC PART NO.	MFR. PART NO.	DESCRIPTION
796564	024K8P-31130-29	24 Fiber, 62.5 μm (OM1)

## FREEDM® LST Interlocking Armored Cable

Corning Cable Systems FREEDM® LST™ Gel-Free Interlocking Armored Cables are flame-retardant, indoor/outdoor, OFNR cables for inter-/intra-building backbones in aerial, duct, and riser installations.



## **Features**

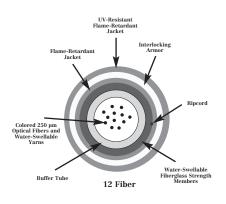
- Contains spirally wrapped aluminum interlocking armor for ruggedness and superior crush resistance
- Individually jacketed TBII® Buffered Fibers enable easy stripping and facilitate termination
- Dry<sup>™</sup> Cable water-blocking technology for OSP applications
- Tight-buffered design eliminates need for fan-out kits
- Available in OS2, OM1, OM2, OM3/OM4, and hybrid versions

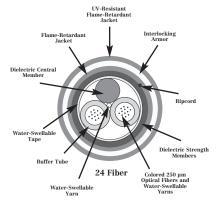
- Offers more than seven times the crush protection compared to unarmored cables
- Reduces overall installation cost with easy, one-step installation
- Gel-free cable design provides more efficient and installer-friendly cable preparation
- Eliminates cable transition at the building entrance, reducing installation time and cost
- Ideal for industrial/heavy traffic areas and high fiber-count trunking applications in areas with limited conduit or vault space

CSC PART NO.	MFR. PART NO.	DESCRIPTION
796563	012KSF-T4130DA1	12 Fiber, 62.5 μm (OM1)
786021	024ESF-T4101DA1	24 Fiber, Singlemode (OS2)









**CORNING** 





## Ribbon Interlocking Armored Plenum Cables

Corning Cable Systems Ribbon Interlocking Armored Plenum Cables are ribbon plenum cables encased in a spirally wrapped interlocking aluminum metal tape for ruggedness and superior crush resistance.

### **Features**

- Flexible interlocking armor offers seven times the crush protection compared to unarmored cables
- Precise fiber and ribbon geometries produce excellent mass splicing yields
- Flame-retardant outer jacket meets the requirements of the NFPA 262 flame test
- Available in OS2, OM1, OM2, OM3/OM4, and hybrid versions

## **Benefits**

- Ideal for heavy traffic or more challenging mechanical exposure conditions
- Meets the application requirements of NEC® Article 770; OFCP and FT-6 listed; RoHS Compliant
- Reduces overall installation cost by allowing easy, one-step installation
- · Compatible with standard ribbon cable procedures and hardware

CSC PART NO.	MFR. PART NO.	DESCRIPTION
796551	036TC8-14180-A3	36 Fiber, Laser-Optimized 50 μm (OM3/OM4)
796552	048TC8-14180-A3	48 Fiber, Laser-Optimized 50 μm (OM3/OM4)

### DESCRIPTION **CSC PART NO** MFR. PART NO. 48 Fiber, Standard 50 µm (OM2) 048CC8-14131-A3

## Ribbon Plenum Cables

Corning Cable Systems Ribbon Plenum Cables are designed for use in plenum, riser, and general-purpose environments for intra-building backbone installations.

## **Features**

- Flexible, flame-retardant outer jacket meets the requirements of the NFPA 262 flame test
- Consists of 12–216 fibers organized into 12 Fiber ribbons inside a central tube surrounded by dielectric strength members to provide tensile strength
- 12 Fiber ribbons have readily identifiable ribbon ID numbers and fiber colors with easy access to individual fibers
- Available in OS2, OM1, OM2, OM3/OM4, and hybrid versions

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947785	012TC8-14180-20	12 Fiber, 50 μm (OM3), All Dielectric
884626	024TC8-14180-20	24 Fiber, 50 μm (OM3), All Dielectric

## Benefits

- Precise fiber and ribbon geometries produce excellent mass splicing yields
- Compatible with standard ribbon cable procedures and hardware
- Meets the application requirements of NEC® 770; OFNP and FT-6 listed
- Available preconnectorized for easy field installation and reduced labor costs

CSC PART NO.	MFR. PART NO.	DESCRIPTION
855403	048TC8-14180-20	48 Fiber, 50 μm (OM3), All Dielectric
855409	144TC8-14180-20	144 Fiber, 50 μm (OM3), All Dielectric

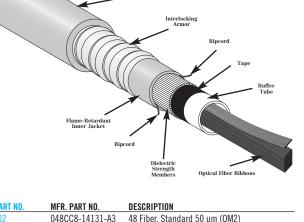
## FREEDM® Ruggedized Ribbon Cables

Corning Cable Systems FREEDM® Ruggedized Ribbon Cables are for indoor and outdoor applications for segregating secure traffic on Protected Distribution Systems (PDS).

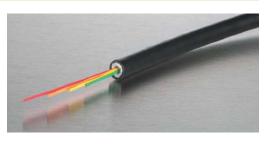
- Consists of 24, 36, or 48 low-water-peak standard multimode optical fibers
- Each ruggedized ribbon has a uniquely colored jacket to provide easy identification as well as additional protection and security
- Completely gel-free with dry water-blocking technology, incorporating super-absorbent polymers used both inside and around the central tube
- Available in lengths up to 4km (13,000')
- Dielectric strength members provide tensile strength

- Ideal for segregating secure traffic on Protected Distribution Systems (PDS)
- Precise fiber and ribbon geometries result in excellent mass-fusion splicing and multi Fiber connectorization yields
- · Gel-free cable design provides more efficient and installer-friendly cable preparation
- · Dielectric cable construction requires no grounding or bonding
- Meets the requirements of NEC® Article 770 and UL® 1666 flame test; listed OFNR FT-6

CSC PART NO.	MFR. PART NO.	DESCRIPTION
796562	048KCF-14130-20	48 Fiber, 62.5 µm (OM1) Multimode



Flame-Retardant Outer Jacket







## SST-Ribbon Cables

Corning Cable Systems SST-Ribbon Cables are designed for use in aerial, duct, and direct-buried applications.

## **Features**

- Patented enhanced coupling features ensure the ribbon stack and cable act as one unit, providing long-term reliability
- Dielectric or steel strength members located 180° apart under the cable jacket provide tensile and anti-buckling strength
- 12 Fiber ribbons have readily identifiable ribbon ID numbers and fiber colors with easy access to individual fibers
- Up to eighteen 12 Fiber ribbons are stacked and wrapped within a water-swellable foam tape and surrounded by a second water-swellable tape

### Benefits

- Precise fiber and ribbon geometries produce excellent mass splicing yields
- · Compatible with standard ribbon cable procedures and hardware
- · Gel-free design speeds installation by eliminating tedious labor of cleaning
- · Easily fits in 1" inner diameter duct
- · Ribbon movement is greatly minimized in situations where cable vibration may occur

CSC PART NO.	MFR. PART NO.	DESCRIPTION
948517	024EC5-14101D53	24 Fiber OSP, Singlemode (OS2), All Dielectric
947460	048EC5-14101D53	48 Fiber OSP, Singlemode (OS2), All Dielectric
878395	144EC5-14101D53	144 Fiber OSP, Singlemode (OS2), All Dielectric

## ALTOS® LSZH™ Gel-Free Cables

Corning Cable Systems ALTOS® LSZH™ Gel-Free Cables are flame-retardant cables for indoor and outdoor use where limited-smoke/zero-halogen restrictions exist.

## **Features**

- Specially formulated black, flame-retardant, non-halogenated material with UV and chemical resistance and low flame spread
- 250 µm color-coded individual fibers offer quick and easy identification during installation
- SZ-stranded, loose-tube design isolates fibers from installation and environmental rigors and allows for easy midspan access
- Available with interlocking armor as well as in a gel-filled cold-temperature version
- Available with 2–288 fibers

## Benefits

- Provides life-safety benefits and reduces health risks in the event of a fire
- Gel-free cable design makes cable access and use of buffer tube fan-out kits simple and craft-friendly
- Provides a high Fiber density within a given cable diameter while offering flexibility to suit many system designs
- · Ideal for industrial applications
- Tray-rated per UL® 13, UL 444, UL 1277, UL 1685, CSA C22.2 No. 230 and No. 232

CSC PART NO.	MFR. PART NO.	DESCRIPTION
796560	012TW7_T/120DA7	12 Fiber Interlocking Armored Cable Laser-Ontimized 50um Multim



"We need to have the flexibility to address our OSP and ISP needs with the same cable. We need to be able to provide voice, data and video as one solution."

## **CORNING**







## ChannelMATE 25-Year Extended Warranty

Mohawk's Open Architecture model is based on TIA 568-C.2 standard that states: "This standard specifies a generic telecommunications cabling system...that will support a multi-product, multi-vendor environment." By choosing Mohawk Cable, your choice of preferred connectivity vendor, and utilizing a BICSI accredited MAC (Mohawk Accredited Contractor) for installation, your project is protected for an extended 25 years. This "Campus-Wide" warranty protection covers Mohawk Cable, which is the foundation of your data transmission AND your choice of connectivity.

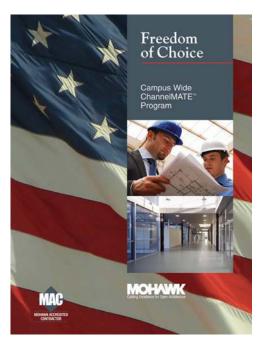
- ChannelMATE offers Freedom of Choice with Mohawk Cable and your choice of Mohawk Connectivity Partner
- "Campus-Wide" extended warranty covers all Mohawk Horizontal 4-Pair UTP and F/UTP cable, backbone copper high pair count cable, fiber cable, and coax cable AND your choice of connectivity
- Warranty ensures your cable installation and connectivity components are free from defects in materials and workmanship
- · Warranty ensures your installation meets or exceeds the applicable mandatory permanent link or channel for electrical or optical performance requirements of ANSI/TIA-568-C
- Expert installation performed by Mohawk's nationwide BICSI accredited MAC contractor base

## **Benefits**

- "Campus-Wide" extended 25-year warranty provides protection for all high-performance Mohawk cable AND connectivity
- · Extended warranty covers Mohawk cable, which is the largest investment of cabling infrastructure AND chosen connectivity
- · Extended warranty is issued directly to end user

Mohawk cabling can be found on pages 40, and 49-54.







## ArmorLite Heavy-Duty Interlocking Armor Fiber Optic Cable Plenum/Riser

ArmorLite Heavy-Duty Interlock Armor Fiber cables provide superior protection in harsh environments. The sturdy and robust cables are resistant to crushing, cutting, and rodents. The 900 µm tight buffered cables offer superior protection in adverse environments, yet can also be installed in general-purpose, riser, and plenum environments. Color armor and steel interlock also available.

## **Features**

- Rugged construction consists of a 2–144 individual 900 μm tight buffered fiber core surrounded by a spirally wrapped interlocking aluminum armor
- Second layer of colored UV and flame-retardant PVC jacket provides enhanced crush and impact cable performance
- Cables offer easy installation with flexible plenum OFCP or riser OFCR listed designs
- · ArmorLite fiber optic cables are available in all grades of multimode and singlemode glass
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations

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Benefits	
Aluminum interlock provides minimum	of 10x the cruch

- resistance over interlock cable
- Low-cost alternative to traditional installations —eliminates need for innerduct by reducing labor costs with one pull
- Ideal for industrial environments, mining shafts, telecommunications, and data trunk; replacement for innerduct and below data center access floor

CSC PART NO.	MFR. PART NO.	DESCRIPTION		
Plenum				
750136	M9 <u>B</u> 240	6 Distribution IARM, Grade 2, 1,000' Reel		
750137	M9 <u>B</u> 241	12 Distribution IARM, Grade 2, 1,000' Reel		
750138	M9 <u>B</u> 242	24 Distribution IARM, Grade 2, 1,000' Reel		
776832	M9 <b>B</b> 245	48 Distribution IARM, Grade 2, 1,000' Reel		

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Riser		
947546	M9 <u>B</u> 230	6 Distribution IARM, Grade 2, 1,000' Reel
947547	M9 <u>A</u> 231	12 Distribution IARM, Grade 4, 1,000' Reel
947548	M9 <u>C</u> 233	24 Distribution IARM, Grade 5, 1,000' Reel
947549	M9 <b>D</b> 235	48 Distribution IARM, Grade 3, 1,000' Reel

NOTE: Available in Grade 2=B, Grade 3=D, Grade 4=A, Grade 5= C, Grade 6=E, SM=W; Ex. change M9B240 to M9D240 for Grade 3. Outdoor Plant and Indoor/Outdoor also available

Mohawk copper cabling can found on pages 49-54.

Contact your local CSC Representative for ordering information.





## VersaLite TBF™ Tight Buffer Indoor/Outdoor Fiber Optic Cable Plenum/Riser

VersaLite TBF is an indoor/outdoor 900 µm tight buffer fiber optic cable constructed with water-swellable aramid strength members, with a ripcord under a rugged UV-resistant jacket. An overall tape barrier protects the cable from moisture. VersaLite TBF is available in all grades of multimode and singlemode fiber in fiber counts from 2-144.





- 900 um tight buffered 2-144 fiber cables available in CMP and CMR
- Fibers and sub-units are color-coded for easy identification
- Fully water-blocked for outdoor applications
- · Durable jacket is flame-retardant and UV resistant
- Meets ICEA S-104-696 test criteria

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Plenum		
814998	M9 <u>B</u> 045T	6 Indoor/Outdoor Distribution CMP, Black, 1,000' Reel
815000	M9 <u>B</u> 048T	12 Indoor/Outdoor Distribution CMP, Black, 1,000' Reel
864936	M9 <u>C</u> 611T	24 Indoor/Outdoor Distribution CMP, Black, 1,000' Reel
947552	M9 <u>A</u> 614T	36 Indoor/Outdoor Distribution CMP, Black, 1,000' Reel
947553	M9 <b>W</b> 616T	48 Indoor/Outdoor Distribution CMP, Black, 1,000' Reel

- Durable jacket can withstand harsh elements and is resistant to abrasion, cut-through, and crushing
- Tight buffer design combines indoor and outdoor performance with one cable
- Eliminates need for breakout kits and demarcation points, saving time and money
- Mine Safety and Health Administration (MSHA) approved cables

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Riser		
814319	M9 <b>B</b> 039T	6 Indoor/Outdoor Distribution CMR, Black, 1,000' Reel
814320	M9 <b>B</b> 042T	12 Indoor/Outdoor Distribution CMR, Black, 1,000' Reel
878009	M9 <b>C</b> 601T	24 Indoor/Outdoor Distribution CMR, Black, 1,000' Reel
947550	M9 <u>A</u> 604T	36 Indoor/Outdoor Distribution CMR, Black, 1,000' Reel
947551	M9 <b>B</b> 606T	48 Indoor/Outdoor Distribution CMR, Black, 1,000' Reel

NOTE: Available in Grade 2=B, Grade 3=D, Grade 4=A, Grade 5= C, Grade 6=E, SM=W; Ex. change M9B045T to M9D045T for Grade 3. Contact your local CSC Representative for ordering information.

## Tactical Fiber Optic Cable

Mohawk's newly redesigned singlemode and multimode tactical fiber optic cables are ideal for harsh outdoor environments where maximum performance and reliability are essential. The 900 µm tight buffer optical cables feature a compact, lightweight, and flexible design, providing exceptionally strong aramid yarn strength members that give the cable superior strength-to-weight ratio benefits. The core is protected by a sunlight-, abrasion-, and cut through-resistant jacket.

- Available up to 12 fiber count, in every available glass type, and 62.5 multimode and 50/125 multimode
- Rugged jacket protects cable in harsh environments down to -55° C
- Smaller and lighter than most traditional cables, resulting in small bend radius capability and improved flexibility
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Designed to military standards

## **Benefits**

- Field-deployable enabling user to re-reel cable and deploy
- Superior level of crush resistance
- Factory pre-terminated fanouts and hermaphroditic assemblies available

USC PART NU.	MFR. PART NU.	DESCRIPTION
Singlemode		
947538	M96566	2 SM Distribution Tactical, Black
947545	M96639	4 SM Distribution Tactical, Black
947539	M96567	6 SM Distribution Tactical, Black
947540	M96568	8 SM Distribution Tactical, Black
947541	M96569	10 SM Distribution Tactical, Black
824128	M96570	12 SM Distribution Tactical, Black

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Multimode		
947849	M96571	2G2 Distribution Tactical, Black
947848	M96551	4G2 Distribution Tactical, Black
947542	M96572	6G2 Distribution Tactical, Black
947543	M96573	8G2 Distribution Tactical, Black
947544	M96574	10G2 Distribution Tactical, Black
947850	M96575	12G2 Distribution Tactical, Black

NOTE: Also available in other fiber counts; contact your local CSC Representative for ordering information.

## Optical Characteristics for Mohawk Fiber Optic Cables

Grade	2	3	4	5	6	SM
Optical Fiber Type	62.5/125 MM	62.5/125	50/125 MM	50/125 MM	50/125 MM	Singlemode
	AdvanceLite	MM AdvanceLite	AdvanceLite	AdvanceLite	AdvanceLite	Enhanced <sup>6</sup>
MFR. PART NO. — 3rd Character	В	D	A	С	E	W
Operating Wavelength (nm)	850/1,300	850/1,300	850/1,300	850/1,300	850/1,300	1,310/1,550
Min. OFL <sup>1</sup> Bandwidth (MHz-km)	200/500	200/500	500/500	1,500/500	3,000/500	_
Min. Laser <sup>2</sup> Bandwidth (MHz-km)	220/500	385/500	510/500	2,000/500	4,700/500	_
Max. Attenuation Loose Tube (dB/km)	3.25/1.0	3.25/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.40/0.30
Max. Attenuation Tight Buffered <sup>3</sup> (dB/km)	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	3.50/1.25	0.80/0.50
100 Mbit Fast Ethernet Min. Link Length (meters S/L/E <sup>4</sup> )	300/2,000	300/2,000	300/2,000	300/2,000	300/2,000	5,000/—
1 Gigabit Ethernet Min. Link Length (meters S/L/E <sup>4</sup> )	300/550	500/1,000	600/600	1,0005/600	1,0005/600	5,000/—
10 Gigabit Ethernet Min. Link Length (meters S/L/E <sup>4</sup> )	33/300	33/300	82/300	300/300	550/300	10,000/40,000

<sup>&</sup>lt;sup>1</sup> OFL — Overfilled Launch

<sup>&</sup>lt;sup>2</sup> Effective Modal Bandwidth, determined by RML

or DMD performance specifications
<sup>3</sup> Max. Attenuation for Tight Buffered and VersaLite Cables

<sup>&</sup>lt;sup>4</sup> S/L/E — Short wavelength (850 nm)/Long wavelength (1,310 nm)/Extra-long wavelength (1,550 nm)

<sup>5 &</sup>gt;2,000 meters for engineered links

<sup>&</sup>lt;sup>6</sup> Low water peak Singlemode suitable for CWDM use complies with ITU G.652.c/d





## Single Unit Distribution OFNR/OFNP

These Single Unit Distribution optical fiber cables are constructed using a single unit/single jacket RoHS Compliant design with fiber counts from 6-24.

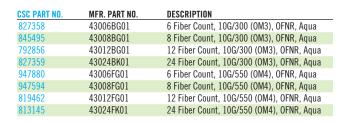


## **Features**

Marked in feet and meters

## **Benefits**

· Meets commercial, government, and international requirements for length markings



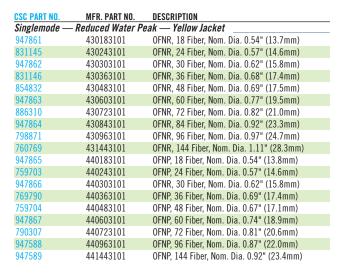
CSC PART NO.	MFR. PART NO.	DESCRIPTION
785393	44006BG01	6 Fiber Count, 10G/300 (OM3), OFNP, Aqua
947884	44008BG01	8 Fiber Count, 10G/300 (OM3), OFNP, Aqua
768684	44012BG01	12 Fiber Count, 10G/300 (OM3), OFNP, Aqua
827361	44024BK01	24 Fiber Count, 10G/300 (OM3), OFNP, Aqua
947883	44006FG01	6 Fiber Count, 10G/550 (OM4), OFNP, Aqua
947595	44008FG01	8 Fiber Count, 10G/550 (OM4), OFNP, Aqua
947885	44012FG01	12 Fiber Count, 10G/550 (OM4), OFNP, Aqua
947887	44024FK01	24 Fiber Count, 10G/550 (OM4), OFNP, Aqua

## Multi-Unit Distribution OFNR/OFNP

Premises Multi-Unit Distribution Optical Fiber Cables are constructed using 6 or 12 fiber subunits stranded around a central strength member in a RoHS Compliant design in 18–144 fiber counts. Options include Reduced Water Peak, singlemode, TeraGain® 220/600 62.5 μm multimode, and TeraGain 10G/150 — laser-optimized 50 µm multimode fiber.

- · Subunits are color-coded according to fiber type
- · Numbered subunits

- Easily identifies fiber type
- · Easily identifies correct subunit on each end



CSC PART NO.	MFR. PART NO.	DESCRIPTION
Multimode —	- TeraGain® Laser Op	ntimized 50/125, 10G/300 — Aqua Jacket
845496	43018BG01	OFNR, 18 Fiber, Nom. Dia. 0.54" (13.7mm)
821934	43024BG01	OFNR, 24 Fiber, Nom. Dia. 0.57" (14.6mm)
947881	43030BG01	OFNR, 30 Fiber, Nom. Dia. 0.62" (15.8mm)
827362	43036BG01	OFNR, 36 Fiber, Nom. Dia. 0.68" (17.4mm)
845497	43048BG01	OFNR, 48 Fiber, Nom. Dia. 0.69" (17.5mm)
845498	43060BG01	OFNR, 60 Fiber, Nom. Dia. 0.77" (19.5mm)
827364	43072BG01	OFNR, 72 Fiber, Nom. Dia. 0.82" (21.0mm)
947882	43084BG01	OFNR, 84 Fiber, Nom. Dia. 0.92" (23.3mm)
845500	43096BG01	OFNR, 96 Fiber, Nom. Dia. 0.97" (24.7mm)
827366	43144BG01	OFNR, 144 Fiber, Nom. Dia. 1.11" (28.3mm)
947886	44018BG01	OFNP, 18 Fiber, Nom. Dia. 0.54" (13.8mm)
761475	44024BG01	OFNP, 24 Fiber, Nom. Dia. 0.57" (14.6mm)
947888	44030BG01	OFNR, 30 Fiber, Nom. Dia. 0.62" (15.8mm)
827369	44036BG01	OFNP, 36 Fiber, Nom. Dia. 0.69" (17.4mm)
827370	44048BG01	OFNP, 48 Fiber, Nom. Dia. 0.67" (17.1mm)
947889	44060BG01	OFNP, 60 Fiber, Nom. Dia. 0.74" (18.9mm)
827372	44072BG01	OFNP, 72 Fiber, Nom. Dia. 0.81" (20.6mm)
947596	44096BG01	OFNP, 96 Fiber, Nom. Dia. 0.87" (22.0mm)
947597	44144BG01	OFNP, 144 Fiber, Nom. Dia. 0.92" (23.4mm)







## Dry Block/Sunlight-Resistant Indoor/Outdoor OFNR

The Dry Block/Sunlight-Resistant Indoor/Outdoor Tight Buffer Riser Rated Cable line can be installed in open spaces, trays, conduits, inner-ducts, trenches, steam tunnels, and building riser locations. These cables incorporate the latest in dry water-blocking technology.



## **Features**

- Exceeds ANSI/TIA-568-C.3 optical performance
- Dry-block design meets Telcordia GR-20-CORE water-block requirements
- 900 µm tight-buffered fibers
- All dielectric
- Black, UL® Listed sunlight-resistant outer jacket

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Singlemode —	Reduced Water P	eak — Black Jacket
764176	W30023101	2 Fiber, Nom. Dia. 0.20" (5.0mm)
831455	W30043101	4 Fiber, Nom. Dia. 0.20" (5.0mm)
765256	W30063101	6 Fiber, Nom. Dia. 0.20" (5.0mm)
947869	W30083101	8 Fiber, Nom. Dia. 0.24" (6.0mm)
808119	W30123101	12 Fiber, Nom. Dia. 0.26" (6.5mm)
947871	W30183101	18 Fiber, Nom. Dia. 0.55" (14.1mm)
789138	W30243101	24 Fiber, Nom. Dia. 0.59" (14.9mm)
947590	W30303101	30 Fiber, Nom. Dia. 0.63" (16.1mm)
846337	W30363101	36 Fiber, Nom. Dia. 0.70" (17.7mm)
789144	W30483101	48 Fiber, Nom. Dia. 0.70" (17.8mm)
947874	W30603101	60 Fiber, Nom. Dia. 0.78" (19.8mm)
947876	W30723101	72 Fiber, Nom. Dia. 0.84" (21.3mm)
947592	W30843101	84 Fiber, Nom. Dia. 0.91" (23.2mm)
947878	W30963101	96 Fiber, Nom. Dia. 0.98" (25.0mm)
947879	W31443101	144 Fiber, Nom. Dia. 1.11" (28.3mm)

## Microarray Data Center Interconnect OFNR/OFNP

The Microarray Data Center Interconnect Cable is designed for high performance in a small package.

## **Features**

- Twelve 250 micron fibers in 3mm package
- Meets or exceeds ANSI/ICEA S-83-596 and GR-409-CORE requirements for interconnect cable
- · Plenum (OFNP) and riser (OFNR) rated designs
- Available in all singlemode and multimode fiber types
- Marked in feet and meters

000 171111 110.		DECORN TION	
Multimode —	TeraGain® Laser (	Optimized 50/125, 10G/300 — Black Jacket	_
853737	W3002BG01	2 Fiber, Nom. Dia. 0.20" (5.0mm)	
947868	W3004BG01	4 Fiber, Nom. Dia. 0.20" (5.0mm)	
764913	W3006BG01	6 Fiber, Nom. Dia. 0.20" (5.0mm)	
947870	W3008BG01	8 Fiber, Nom. Dia. 0.24" (6.0mm)	
779541	W3012BG01	12 Fiber, Nom. Dia. 0.26" (6.5mm)	
947872	W3018BG01	18 Fiber, Nom. Dia. 0.55" (14.1mm)	
815966	W3024BG01	24 Fiber, Nom. Dia. 0.59" (14.9mm)	
947591	W3030BG01	30 Fiber, Nom. Dia. 0.63" (16.1mm)	
947873	W3036BG01	36 Fiber, Nom. Dia. 0.70" (17.7mm)	
815967	W3048BG01	48 Fiber, Nom. Dia. 0.70" (17.8mm)	
947875	W3060BG01	60 Fiber, Nom. Dia. 0.78" (19.8mm)	





## **Benefits**

- Future-proof fiber performance for multi-gigabit applications
- Cable integrity maintained even if damage occurs to protective layers
- Attaches directly to mechanical connectors

MFR. PART NO.

W3072BG01

W3084BG01

W3096BG01

W3144BG01

- · No additional grounding materials need to be purchased
- Long periods of direct sunlight exposure will not damage cable



72 Fiber, Nom. Dia. 0.84" (21.3mm)

84 Fiber, Nom. Dia. 0.91" (23.2mm)

96 Fiber, Nom. Dia. 0.98" (25.0mm)

144 Fiber, Nom. Dia. 1.11" (28.3mm)

## **Benefits**

947877

947593

827401 827402

- Allows for higher fiber density in data center applications
- Worry-free installation and performance
- Fire-listed cables allow placement in plenum and riser spaces
- Build your network with the fiber type that you need now or for the future
- Meets commercial and government requirements for length markings

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947611	P3012BG01	12 Fiber Count, 10G/300 (OM3), Nominal Diameter (0.12" [3.0mm]), OFNR, Aqua
947612	P3012FG01	12 Fiber Count, 10G/550 (OM4), Nominal Diameter (0.12" [3.0mm]), OFNR, Aqua
947613	P4012BG01	12 Fiber Count, 10G/300 (OM3), Nominal Diameter (0.12" [3.0mm]), OFNP, Aqua
947614	P4012FG01	12 Fiber Count, 10G/550 (0M4), Nominal Diameter (0.12" [3.0mm]), OFNP, Aqua

## Microarray Breakout Cable

The Microarray Breakout Cable offers high performance in a small package. The design consists of six 12 fiber 3mm microarray interconnect cable subunits, each containing twelve 250 micron multimode fibers.

## Features

- 12 fiber 3mm interconnect subunits
- Meets or exceeds ICEA 83-596-2001 and GR-409-CORE requirements for interconnect subunits and trunk cable
- Plenum (OFNP) rated design
- Available in 62.5/125 micron and laser-optimized 50/125 micron multimode fiber types

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
947933	P4072BG01	72 Fiber Count, 10G/300 (OM3), OFNP, Aqua	Aqua



- Connects directly to MTP/MPO 12 fiber array connectors
- Worry-free installation and performance
- Fire-listed cables allow placement in plenum spaces
- Build your network with the fiber type that you need now or for the future

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947934	P4072FG01	72 Fiber Count, 10G/550 (OM4), OFNP, Aqua





## Interlock Armored Premises Fiber OFCR/OFCP

Interlock Armored Optical Fiber Cables provide for an extremely well-protected cable package ideally suited for harsh environments. The armor is available in aluminum or steel and comes with either an OFCR (riser) or OFCP (plenum) rating.

## **Features**

- Subunits are color-coded according to fiber type
- Numbered subunits

CSC PART NO.	MFR. PART NO.	DESCRIPTION
	ht Buffer — Sing	lemode — Reduced Water Peak —
Yellow Jacket		
947892	L30043301	OFCR, 4 Fiber, Nom. Dia. 0.54" (13.8mm)
880055	L30063401	OFCR, 6 Fiber, Nom. Dia. 0.54" (13.8mm)
948518	L30083401	OFCR, 8 Fiber, Nom. Dia. 0.54" (13.8mm)
856824	L30123401	OFCR, 12 Fiber, Nom. Dia. 0.62" (15.7mm)
947895	L30183K1Q	OFCR, 18 Fiber, Nom. Dia. 0.66" (16.8mm)
947898	L30243K1Q	OFCR, 24 Fiber, Nom. Dia. 0.70" (17.8mm)
947909	L40043301	OFCP, 4 Fiber, Nom. Dia. 0.50" (12.7mm)
838746	L40063401	OFCP, 6 Fiber, Nom. Dia. 0.50" (12.7mm)
839279	L40123401	OFCP, 12 Fiber, Nom. Dia. 0.55" (13.9mm)
789213	L40183K1Q	OFCP, 18 Fiber, Nom. Dia. 0.59" (15.1mm)
829896	L40243K1Q	OFCP, 24 Fiber, Nom. Dia. 0.59" (15.1mm)
	t Buffer — Single	emode — Reduced Water Peak —
Yellow Jacket		
947600	L30183401	OFCR, 18 Fiber, Nom. Dia. 0.95" (24.1mm)
947897	L30243401	OFCR, 24 Fiber, Nom. Dia. 0.95" (24.1mm)
947901	L30363401	OFCR, 36 Fiber, Nom. Dia. 1.05" (26.7mm)
947903	L30483401	OFCR, 48 Fiber, Nom. Dia. 1.05" (26.8mm)
886309	L30723401	OFCR, 72 Fiber, Nom. Dia. 1.23" (31.2mm)
947906	L30963401	OFCR, 96 Fiber, Nom. Dia. 1.38" (35.1mm)
947908	L31443401	OFCR, 144 Fiber, Nom. Dia. 1.73" (44.0mm)
947910	L40183401	OFCP, 18 Fiber, Nom. Dia. 0.90" (22.8mm)
947911	L40243401	OFCP, 24 Fiber, Nom. Dia. 0.90" (22.8mm)
947912	L40363401	OFCP, 36 Fiber, Nom. Dia. 1.02" (25.8mm)
857328	L40483401	OFCP, 48 Fiber, Nom. Dia. 1.02" (25.8mm)
947913	L40723401	OFCP, 72 Fiber, Nom. Dia. 1.19" (30.3mm)
		t Buffer — Singlemode —
	r Peak — Black J	
947890	L30023W01	OFCR, 2 Fiber, Nom. Dia. 0.54" (13.8mm)
947598	L30043W01	OFCR, 4 Fiber, Nom. Dia. 0.54" (13.8mm)
947893	L30063W01	OFCR, 6 Fiber, Nom. Dia. 0.54" (13.8mm)
947894	L30123W01	OFCR, 12 Fiber, Nom. Dia. 0.62" (15.7mm)
		Buffer — Singlemode —
	r Peak — Black J	
947601	L30183W01	OFCR, 18 Fiber, Nom. Dia. 0.95" (24.1mm)
947899	L30243W01	OFCR, 24 Fiber, Nom. Dia. 0.95" (24.1mm)
947604	L30363W01	OFCR, 36 Fiber, Nom. Dia. 1.05" (26.7mm)
947606	L30483W01	OFCR, 48 Fiber, Nom. Dia. 1.05" (26.8mm)
947904	L30723W01	OFCR, 72 Fiber, Nom. Dia. 1.23" (31.2mm)
947907	L30963W01	OFCR, 96 Fiber, Nom. Dia. 1.38" (35.1mm)
947607	L31443W01	OFCR, 144 Fiber, Nom. Dia. 1.73" (44.0mm)

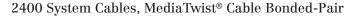


- · Easily identifies fiber type
- · Easily identifies correct subunit on each end

CSC PART NO.	MFR. PART NO.	DESCRIPTION
		mode — TeraGain® Laser Optimized 50/125,
	Agua Jacket	
947599	L3004B301	OFCR, 4 Fiber, Nom. Dia. 0.54" (13.8mm)
827374	L3006B401	OFCR, 6 Fiber, Nom. Dia. 0.54" (13.8mm)
948519	L3008B401	OFCR, 8 Fiber, Nom. Dia. 0.54" (13.8mm)
827376	L3012B401	OFCR, 12 Fiber, Nom. Dia. 0.62" (15.7mm)
947896	L3018BK1Q	OFCR, 18 Fiber, Nom. Dia. 0.66" (16.8mm)
827378	L3024BK1Q	OFCR, 24 Fiber, Nom. Dia. 0.70" (17.8mm)
943868	L4004B301	OFCP, 4 Fiber, Nom. Dia. 0.50" (12.7mm)
827386	L4006B401	OFCP, 6 Fiber, Nom. Dia. 0.50" (12.7mm)
791637	L4012B401	OFCP, 12 Fiber, Nom. Dia. 0.55" (13.9mm)
947610	L4018BK1Q	OFCP, 24 Fiber, Nom. Dia. 0.59" (15.1mm)
791639	L4024BK1Q	OFCP, 18 Fiber, Nom. Dia. 0.59" (15.1mm)
		ode — TeraGain Laser Optimized 50/125,
10G/300 —	Aqua Jacket	
947602	L3018B401	OFCR, 18 Fiber, Nom. Dia. 0.95" (24.1mm)
947900	L3024B401	OFCR, 24 Fiber, Nom. Dia. 0.95" (24.1mm)
947902	L3036B401	OFCR, 36 Fiber, Nom. Dia. 1.05" (26.7mm)
827380	L3048B401	OFCR, 48 Fiber, Nom. Dia. 1.05" (26.8mm)
947905	L3072B401	OFCR, 72 Fiber, Nom. Dia. 1.23" (31.2mm)
827382	L3096B401	OFCR, 96 Fiber, Nom. Dia. 1.38" (35.1mm)
827383	L3144B401	OFCR, 144 Fiber, Nom. Dia. 1.73" (44.0mm)
947609	L4018B401	OFCP, 18 Fiber, Nom. Dia. 0.90" (22.8mm)
778840	L4024B401	OFCP, 24 Fiber, Nom. Dia. 0.90" (22.8mm)
789210	L4036B401	OFCP, 36 Fiber, Nom. Dia. 1.02" (25.8mm)
827391	L4048B401	OFCP, 48 Fiber, Nom. Dia. 1.02 (25.8mm)
827400	L4072B401	OFCP, 72 Fiber, Nom. Dia. 1.19" (30.3mm)
		ultimode — TeraGain Laser Optimized 50/125,
	Black Jacket	0F0D 0 Fiber News Die 0 F4H (12 0mm)
947891	L3002BW01	OFCR, 2 Fiber, Nom. Dia. 0.54" (13.8mm)
849239	L3004BW01	OFCR, 4 Fiber, Nom. Dia. 0.54" (13.8mm)
849240	L3006BW01	OFCR, 6 Fiber, Nom. Dia. 0.54" (13.8mm)
849241	L3012BW01	OFCR, 12 Fiber, Nom. Dia. 0.62" (15.7mm)
100/200	nuour/outuour — mu Black Jacket	ltimode — TeraGain Laser Optimized 50/125,
947603	L3018BW01	OFCR, 18 Fiber, Nom. Dia. 0.95" (24.1mm)
849242	L3024BW01	OFCR, 24 Fiber, Nom. Dia. 0.95" (24.1mm)
947605	L3036BW01	OFCR, 36 Fiber, Nom. Dia. 1.05" (26.7mm)
849243	L3048BW01	OFCR, 48 Fiber, Nom. Dia. 1.05" (26.8mm)
849244	L3072BW01	OFCR, 72 Fiber, Nom. Dia. 1.23" (31.2mm)
849245	L3096BW01	OFCR, 96 Fiber, Nom. Dia. 1.38" (35.1mm)
947608	L3144BW01	OFCR, 144 Fiber, Nom. Dia. 1.73" (44.0mm)
377000	LUITTUIUI	OTON, 177 FIDOI, HOIII. DIG. 1.75 (47.011111)

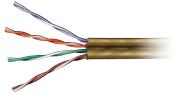






MediaTwist, part of the 2400 System, is engineered to exceed the ANSI/TIA/EIA-568-B.2-1 Category 6 requirements. The exceptional physical uniformity of MediaTwist translates into premier electrical performance benefits for users. Available in plenum and non-plenum versions, MediaTwist has taken Bonded-Pair Technology a step further. Its unique crescent-shape design ensures that pair-to-pair movement is minimized during installation. The innovative design of MediaTwist provides stable cross talk and impedance performance, both before and after installation. This results in improved signal integrity and reduced signal radiation, making MediaTwist an excellent choice for your Category 6 cable.



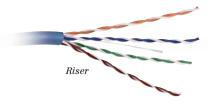


CSC PART NO.	MFR. PART NO.	DESCRIPTION
581259	1872A 0091000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, White, 1,000' Reel
581258	1872A 0061000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, Light Blue, 1,000' Reel
584929	1872A 009A1000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, White, 1,000' Reel-in-a-Box
421308	1872A 006A1000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, Light Blue, 1,000' Reel-in-a-Box
585020	1874A 0091000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, White, 1,000' Reel
416333	1874A D151000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, Blue, 1,000' Reel
514364	1874A 009A1000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, White, 1,000' Reel-in-a-Box
513246	1874A D15A1000	MediaTwist, Bonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, Blue, 1,000' Reel-in-a-Box

NOTE: Red, black, and other colors, lengths, and packaging are available; contact your local CSC Representative.

## 2400 System Cables, DataTwist® 2400 Cable Nonbonded-Pair

DataTwist 2400 Cable consists of 4-pair UTP cables that exceed Category 6 requirements as per ANSI/TIA/EIA-568-B.2-1. When used as the horizontal cable in the Belden IBDN System 2400, the channel provides at least 250 MHz of bandwidth and a data-rate of 2.4 Gb/s.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
746167	2412 009A1000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, White, 1,000' Reel-in-a-Box
596073	2412 006A1000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, Blue, 1,000' Reel-in-a-Box
469973	2412 0091000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, White, 1,000' Reel
469972	2412 0061000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMR, Category 6, Blue, 1,000' Reel
580729	2413 009A1000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, White, 1,000' Reel-in-a-Box
580728	2413 D15A1000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, Blue, 1,000' Reel-in-a-Box
497283	2413 0091000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, White, 1,000' Reel
497284	2413 D151000	DataTwist 2400, Nonbonded-Pair, 4-Pair, 23 AWG, CMP, Category 6, Blue, 1,000' Reel

NOTE: Red, black, and other colors, lengths, and packaging are available; contact your local CSC Representative.

## DataTwist® Category 6 Limited Combustible Nonbonded-Pair

DataTwist Limited Combustible Category 6 Cable is engineered specifically to meet the NFPA requirements for a Limited Combustible cable and perform beyond Category 6 requirements per ANSI/TIA/EIA-568-B.2-1. Available only in a plenum version, the DataTwist Category 6 Limited Combustible Cable is the next generation of cable technology, providing Bonded-Pairs for Installable Performance® and the ultimate in fire and smoke safety.

## Limited Combustible Cable eliminates the significant costs associated with abandoned cable

IT and networking systems are constantly being upgraded with equipment that communicates at higher data-rates. This means that existing cabling — the cabling within the walls and ducts — eventually becomes obsolete. Removing this cable is expensive, so it is frequently left in place/abandoned, even though it is no longer used. If this abandoned cable does not carry the Limited Combustible rating, it becomes, in essence, part of the "fuel load," and a significant safety hazard. That's why Limited Combustible Cable makes sense: it increases your safety both today and tomorrow. And, if the codes should change and it becomes mandatory to remove abandoned cable, the use of Limited Combustible Cable will eliminate the considerable costs associated with removing the left-behind cable.

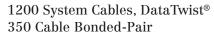


CSC PART NO.	MFR. PART NO.	DESCRIPTION
746768	7813LC 0091000	DataTwist Category 6 Limited Combustible, CMP-50 — 4-Pair, 23 AWG, White Jacket, 1,000' Reel
746769	7813LC 0061000	DataTwist Category 6 Limited Combustible, CMP-50 — 4-Pair, 23 AWG, Light Blue Jacket, 1,000' Reel
746770	7813LC 009U1000	DataTwist Category 6 Limited Combustible, CMP-50 — 4-Pair, 23 AWG, White Jacket, 1,000' UnReel®
746771	7813LC 006U1000	DataTwist Category 6 Limited Combustible, CMP-50 — 4-Pair, 23 AWG Light Blue Jacket, 1,000' UnReel

NOTE: Other colors, lengths, and packaging are available; contact your local CSC Representative.









DataTwist 350 provides the user with superior electrical performance both "on-the-reel" and in the wall. DataTwist 350 Cables are available in plenum and non-plenum versions. They ensure superior Installable Performance® by utilizing the patented Bonded-Pair design. They exceed the full range of industry performance criteria, both electrically and physically.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
585626	1700A 0091000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CM, Category 5e Enhanced, White Jacket, 1,000' Reel
416316	1700A 0061000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CM, Category 5e Enhanced, Light Blue Jacket, 1,000' Reel
420682	1700A 009U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CM, Category 5e Enhanced, White Jacket, 1,000′ UnReel®
516284	1700A 006U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CM, Category 5e Enhanced, Light Blue Jacket, 1,000' UnReel
746759	1700R 0091000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, White Jacket, 1,000' Reel
746761	1700R 0061000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, Light Blue Jacket, 1,000' Reel
746760	1700R 009U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, White Jacket, 1,000' UnReel
746762	1700R 006U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, Light Blue Jacket, 1,000' UnReel
520266	1701A 0091000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, White Jacket, 1,000' Reel
520264	1701A D151000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, Light Blue Jacket, 1,000' Reel
599458	1701A 009U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, White Jacket, 1,000' UnReel
327493	1701A D15U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, Light Blue Jacket, 1,000' UnReel
582116	1701LC 0091000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP-50, Category 5e Enhanced, White Jacket, 1,000' Reel
582114	1701LC 0061000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP-50, Category 5e Enhanced, Light Blue Jacket, 1,000' Reel
582115	1701LC 009U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP-50, Category 5e Enhanced, White Jacket, 1,000' UnReel
582112	1701LC 006U1000	DataTwist 350, Bonded-Pair, 4-Pair, 24 AWG, CMP-50, Category 5e Enhanced, Light Blue Jacket, 1,000' UnReel

NOTE: Red, black, and other colors, lengths, and packaging are available; contact your local CSC Representative.

## 1200 System Cables, DataTwist® 1200 Cable Nonbonded-Pair



DataTwist 1200 Cable Series consists of 4-pair UTP cables that exceed the Category 5e requirements as per ANSI/TIA/EIA-568-B.2 standard. When used as the horizontal cable in the Belden IBDN System 1200, the channel provides 160 MHz of bandwidth and a data-rate of up to 1.2 Gb/s.

CSC PART NO.	MFR. PART NO.	DESCRIPTION		
497285	1212 009U1000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, White, 1,000' UnReel®		
418904	1212 006U1000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, Blue, 1,000' UnReel		
746169	1212 0091000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, White, 1,000' Reel		
858407	1212 0061000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMR, Category 5e Enhanced, Blue, 1,000' Reel		
461421	1213 009U1000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, White, 1,000' UnReel		
403729	1213 D15U1000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, Blue, 1,000' UnReel		
585774	1213 0091000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, White, 1,000' Reel		
498571	1213 D151000	DataTwist 1200, Nonbonded-Pair, 4-Pair, 24 AWG, CMP, Category 5e Enhanced, Blue, 1,000' Reel		
NOTE: Red, black, and other colors, lengths, and packaging are available; contact your local CSC Representative.				

## Multi Conductor Cable — Belden Classics

An integral part of the Belden offering, — cables which have endured the test of time and continue to dominate "call-outs" nationwide

Call-Outs	nationwide.	
CSC PART NO.	MFR. PART NO.	DESCRIPTION
Non-Shielde	d, Non-Plenum_	
473556	8442 0601000	22 AWG-2 Cond Stranded TC CMG Chrome
		High-Conductivity Speaker Wire 1,000' Reel
314557	8443 0601000	22 AWG-3 Cond Stranded TC CMG Chrome 1,000' Reel
313996	8444 0601000	22 AWG-4 Cond Stranded TC CMG Chrome 1,000' Reel
Non-Shielde	d, Plenum	
579920	82723 8771000	22 AWG-2 Cond Stranded T Individual
		Shielded Pairs CMP Natural 1,000' Reel
Shielded, No	n-Plenum	
307046	8770 0601000	18 AWG-3 Cond Stranded TC Overall Shield
		CM Chrome 1,000' Reel
416440	9418 0601000	18 AWG-4 Cond Stranded(19) TC Overall Shield
		CMG Chrome 1,000' Reel
700182	8772 060500	20 AWG-3 Cond Stranded TC Overall Shield
		CM Chrome 500' Reel
318164	8771 060U1000	22 AWG-3 Cond Stranded TC Overall Shield
		CM Chrome 1,000' Reel
416467	9541 0601000	24 AWG-15 Cond Stranded TC Overall Shield
		CMG Chrome 1,000' Reel 30PF/FT RS-232

## Multi Paired Cable — Belden Classics

CSC PART NO.	MFR. PART NO.	DESCRIPTION			
Non-Shielde	Non-Shielded, Non-Plenum				
523786	8471 0601000	16 AWG-1-Pair Stranded(19) TC CMG Chrome 1,000' Reel			
473560	8461 0601000	18 AWG-1-Pair Stranded TC CMG Chrome 1,000' Reel			
301918	9740 060U1000	18 AWG-1-Pair Stranded TC CMG Chrome 1,000' Box			
Non-Shielde	d, Plenum				
516941	82740 8771000	18 AWG-1-Pair Stranded TC CMP Natural 1,000' Reel			
Shielded, No	n-Plenum				
340062	8719 0601000	16 AWG-1-Pair Stranded(19) TC Overall Shield CM Chrome 1,000' Reel			
319620	8760 0601000	18 AWG-1-Pair Stranded(16) TC Overall Shield CM Chrome 1,000' Reel			
578812	8762 0601000	20 AWG-1-Pair Stranded TC Overall Shield CM Chrome 1,000' Reel			
312603	8777 0601000	22 AWG-3-Pair Stranded TC Individual Shielded Pairs CM Chrome 1,000' Reel			
306597	8761 0601000	22 AWG-1-Pair Stranded TC Overall Shield CM Chrome 1,000' Reel			
531222	9451 010U1000	22 AWG-1-Pair Stranded TC Overall Shield CMR Black 1,000' Box			
301917	8723 0601000	22 AWG-2-Pair Stranded TC Individual Shielded Pairs CM Chrome 1,000' Reel			
473615	9501 0601000	24 AWG-1-Pair Stranded TC Overall Shield CMG Chrome 1,000' Reel			
416478	9729 0601000	24 AWG-2-Pair Stranded TC Individual Shielded Pairs CM Chrome 1,000' Reel			
Shielded, Plenum					
539256	82760 877U1000	18 AWG-1-Pair Stranded TC Overall Shield CMP Natural 1,000' Box			
318163	88760 002U1000	18 AWG-1-Pair Stranded(19) TC Overall Shield CMP Red 1,000' Box			
416411	88761 0021000	22 AWG-1-Pair Stranded TC Overall Shield CMP Red 1,000' Reel			
314248	82761 8771000	22 AWG-1-Pair Stranded TC Overall Shield CMP Natural 1,000' Reel			
For additiona	al Belden Classic	cables, contact your local CSC Representative.			





## LANmark<sup>™</sup>-10G FTP

LANmark-10G FTP is ideal for applications needing the most advanced performance and signal isolation. One overall foil shield, instead of individually shielded pairs, reduces cable termination time and yields a smaller overall O.D.



**BERK-TEK** 





## **Features**

- ETL verified to TIA/EIA-568-B.2-10 Category 6a
- Outstanding signal isolation
- Superior alien crosstalk performance

CSC PART NO.	MFR. PART NO.	DESCRIPTION
873284	10189798	Grey, 4-Pair, 23 AWG, Riser, F/UTP, 1,000' Reel
873287	10189801	White 4-Pair 23 AWG Riser F/IJTP 1 000' Reel

## Benefits

- Increased signal isolation prevents contaminant noise from entering cabling system
- Completely compliant with IEEE requirements
- Lower bit errors resulting in increased network performance

CSC PART NO.	MFR. PART NO.	DESCRIPTION
830308	10167487	Grey, 4-Pair, 23 AWG, Plenum, F/UTP, 1,000' Reel
830295	10167485	White, 4-Pair, 23 AWG, Plenum, F/UTP, 1,000' Reel

## LANmark<sup>™</sup>-10G2

LANmark™-10G2 is a next generation cable for 10G Ethernet with the ability to support a convergence of technologies, simplifying even the most dynamic network. The 10G2 design minimizes alien crosstalk without sacrificing a small O.D.

## **Features**

- · New, flexible, round, compact design
- · Alien-crosstalk compliant
- Fully compliant to Augmented Category 6 requirements
- Documented balance characteristics (LCL/TCL, EL TCTL)
- · Reduced attenuation (insertion loss)

Benefit
---------

- Round design provides a true O.D. measurement and simplifies installation and management
- Provides the bandwidth required for multimedia, broadband video, analog video, and other future applications
- Balance characteristics improve overall cable performance and reduce transmission errors
- Characterized to 750 MHz (250 MHz greater than the standard)
- Improved insertion loss for stronger signal-to-noise ratio

CSC PART NO.	MFR. PART NO.	DESCRIPTION
821425	10130484	Blue, 4-Pair, 23 AWG, CMP, 1,000' Reel
827905	10137183	Grey, 4-Pair, 23 AWG, CMP, 1,000' Reel
820000	10137384	White, 4-Pair, 23 AWG, CMP, 1,000' Reel
821476	10137385	Yellow, 4-Pair, 23 AWG, CMP, 1,000' Reel
828275	10137695	Black, 4-Pair, 23 AWG, CMP, 1,000' Reel

### **CSC PART NO.** MFR. PART NO. DESCRIPTION 10137700 Blue, 4-Pair, 23 AWG, CMR, 1,000' Reel 827907 Grey, 4-Pair, 23 AWG, CMR, 1,000' Reel 10137701 White, 4-Pair, 23 AWG, CMR, 1,000' Reel 827909 10137703 Yellow, 4-Pair, 23 AWG, CMR, 1,000' Reel 828276 10137706 828278 Black, 4-Pair, 23 AWG, CMR, 1,000' Reel 10137704

## LANmark<sup>™</sup>-2000

LANmark-2000 is Berk-Tek's highest performing CAT 6 UTP. Every key electrical has been improved relative to the TIA/EIA 568-B.2-1 CAT 6 standard to ensure stronger signals that are less susceptible to outside interference.



## Features

- Full duplex operation capable over 4 cable pairs
- Increased usable bandwidth versus the Category 6 standard
- Reduced attenuation (insertion loss)
- Documented balance characteristics (LCL/TCL, EL TCTL)
- ETL verified to ANSI/TIA/EIA-568-B.2-1 Category 6 standard

## Benefits

- Improves performance and distance capabilities for PoE and VoIP applications
- Balance characteristics improve overall cable performance and reduce transmission errors
- Provides bandwidth required for multimedia, broadband video, analog video, and other future applications

CCC DART NO. MED DART NO. DECEDIRATION

- State-of-the-art testing enables high-frequency characterization of the cable to 600 MHz
- Capable of handling applications that utilize full duplex operation and/or simultaneous bi-directional transmission

CSC PART NO.	MFR. PART NO.	DESCRIPTION
826585	10167480	White, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Reel
826591	10167476	Blue, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Reel
826575	10167478	Grey, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Reel
826587	10167481	White, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP,
		1,000' Reel-in-a-Box
826593	10167477	Blue, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP,
		1,000' Reel-in-a-Box
826582	10167479	Grey, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP,
		1.000' Reel-in-a-Box

USU FART NU.	MILK. FAKT NO.	DESCRIFTION
830282	10167311	White, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Reel
830277	10163222	Blue, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Reel
830287	10167464	Grey, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Reel
830221	10167312	White, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000'
		Reel-in-a-Box
830203	10163780	Blue, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000'
		Reel-in-a-Box
830279	10167307	Grey, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000'
		Reel-in-a-Box





## LANmark<sup>™</sup>-6 FTP 4-Pair Product Series



LANmark-6 FTP is an independently verified Category 6 FTP cable. Ideal for applications that require advanced cable performance and the additional signal isolation advantages of an FTP design. Fully supports 10GBase-T.

### **Features**

- ETL verified to TIA/EIA-568-B.2 Category 6
- Fully supports IEEE 802.3AN draft requirements
- · Can be used with RJ45 Style FTP connectivity

### **Benefits**

- · Increased signal isolation prevents contaminant noise from entering cabling system
- Guaranteed 10GBase-T support
- Lower bit errors resulting in increased network performance

CSC PART NO.	MFR. PART NO.	DESCRIPTION
704743	10070439	Grey, 4-Pair, 23 AWG, Non-Plenum, 1,000' Reel
704745	10074211	Red, 4-Pair, 23 AWG, Non-Plenum, 1,000' Reel
704747	10074212	Black, 4-Pair, 23 AWG, Non-Plenum, 1,000' Reel
704748	10057903	Grey, 4-Pair, 23 AWG, Plenum, 1,000' Reel
947627	10063671	Red, 4-Pair, 23 AWG, Plenum, 1,000' Reel
704755	10063672	Black, 4-Pair, 23 AWG, Plenum, 1,000' Reel

NOTE: See page 75 for Shielded TracJack; page 13 for TracJack Patch Panel Kit; and page 75 for FTP Patch Cords.

## LANmark<sup>™</sup>-1000



LANmark-1000 was one of the first cables in the industry that set requirements for cable balance, helping to ensure additional network protection against the damaging effects of outside noise sources.

## Features

- · Full duplex operation capable over four cable pairs
- Full power sum performance
- Documented balance characteristics (LCL, LCTL)
- · Small, round, easy-to-install construction
- ETL verified to ANSI/TIA/EIA-568-B.2-1 Category 6 standard

## **Benefits**

- Able to handle high-speed network applications that use full duplex operation and/or simultaneous bi-directional transmission
- Power sum characterization gives highest performance using existing applications
- Addition of balance requirements improves overall cable performance and reduces transmission errors
- State-of-the-art testing enables high-frequency characterization of the cable to 550 MHz

G PAKI NU.	MIFR. PART NU.	DESCRIPTION
71726	10032459	White, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Box
96518	10032455	Blue, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Box
30189	10032452	Grey, 4-Pair, 23 AWG, Non-Plenum, CAT 6 UTP, 1,000' Box
68101	10032092	White, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Box
30232	10032094	Blue, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Box
01646	10032026	Grey, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' Box
	71726 96518 80189 68101 80232	96518     10032455       80189     10032452       68101     10032092       30232     10032094

## LANmark<sup>™</sup>-6





Smaller, lighter, and easier to work with, LANmark-6 has no spline for a reduced diameter versus other CAT 6 UTP cables. It's an ANSI/TIA/EIA CAT 6 verified cable, ideal for communication networks needing up to 1G networking speeds.

## **Features**

- Inexpensive, compact design with no center spline and an O.D. of 0.195"
- Meets ANSI/TIA/EIA-568-B.2-1 requirements
- Usable bandwidth up to 250 MHz
- Delivered in compact, strong, easy-to-identify boxes

## Benefits

- Simplified installation
- Cost-effective, entry-level Category 6 solution
- Superior box design cable can be pulled easily from box with minimum kinking
- Compact box design takes up less shelf space
- Characterized to 500 MHz (250 MHz greater than the standard)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
806042	10136338	Grey, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
806044	10136339	Blue, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
806055	10136340	White, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
841554	10136753	Yellow, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
828119	10170932	Black, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
848559	10136752	Green, 4-Pair, 23 AWG, Riser, CAT 6 UTP, 1,000' TekPak Box
806032	10132983	Grey, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box
806035	10136226	Blue, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box
806037	10136230	White, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box
837416	10136749	Yellow, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box
818698	10136748	Green, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box
857850	10188830	Black, 4-Pair, 23 AWG, Plenum, CAT 6 UTP, 1,000' TekPak Box

## LANmark™-6 OSP



Berk-Tek's LANmark-6 OSP (Outside Plant) Standard Category 6 UTP cables are designed for outside applications, either aerial or buried in conduit or duct, where building to building interconnections must be made.

## **Features**

- Meets ANSI/TIA/EIA-568-B.2-1 requirements
- Usable bandwidth up to 250 MHz
- Fully water blocked for outdoor and wet environments
- Supports 1000Base-TX

## Renefits

- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplifies structured cabling solution, preserving long-term network investment
- Meets NEC® requirement for cable in wet locations

CSC PART NO.	MFR. PART NO.	DESCRIPTION
823430	10139885	Black, 4-Pair, 23 AWG, Gel-Filled UTP, 1,000' Reel





## LANmark<sup>™</sup>-5e FTP Product Series

LANmark-5e FTP cables are designed for cabling applications to connect user outlets and the horizontal cross-connect. It provides signal isolation and is ideal for installations subjected to significant external noise sources.







## **Features**

- Independently verified to TIA/EIA Category 5e
- Supports 10Base-T, 100Base-T, 1000Base-T
- Can be used with RJ45 Style FTP connectivity

CSC PART NO.	MFR. PART NO.	DESCRIPTION
704836	10043494	Grey, 4-Pair, 24 AWG, Non-Plenum, 1,000' Reel
704838	10063684	Red, 4-Pair, 24 AWG, Non-Plenum, 1,000' Reel
736626	10068822	Black, 4-Pair, 24 AWG, Non-Plenum, 1,000' Reel

## Benefits

- · Reduced cable interference problems in areas of high EMI
- Extends performance limits for network applications, thus increasing cabling lifetime

CSC PART NO.	MFR. PART NO.	DESCRIPTION
509970	10032121	Grey, 4-Pair, 24 AWG, Plenum, 1,000' Reel
736625	10053566	Red, 4-Pair, 24 AWG, Plenum, 1,000' Reel
704843	10061862	Black, 4-Pair, 24 AWG, Plenum, 1,000' Reel

## LANmark-350™

LANmark-350 premium CAT 5e UTP is designed for users that demand the best CAT 5e networks. Characterized to 450 MHz, the guaranteed performance far exceeds ANSI/TIA/EIA-568-B.2 cable requirements for PS-NEXT, RL, and impedance.

## **Features**

- Characterized to 450 MHz, 350 MHz greater than standard
- · Small, round design
- ETL verified to TIA/EIA-568-B.2 and ISO/IEC 11801

CSC PART NO.	MFR. PART NO.	DESCRIPTION
483706	10032434	White, 4-Pair, 24 AWG, Non-Plenum, CAT 5e UTP, 1,000' Box
320019	10032426	Blue, 4-Pair, 24 AWG, Non-Plenum, CAT 5e UTP, 1,000' Box
318887	10032447	Grev. 4-Pair. 24 AWG. Non-Plenum. CAT 5e UTP. 1.000' Box

## Benefits

- Reliably supports today's network protocols, including fast and Gigabit Ethernet
- · Reduced installation costs and maintenance
- · Lower bit error rates, increases network efficiency and uptime

CSC PART NO.	MFR. PART NO.	DESCRIPTION
316713	10032072	White, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box
317433	10032065	Blue, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box
483594	10032079	Grey, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box

## Hyper Plus 5e

Hyper Plus 5e Standard Category 5e UTP cables are designed for horizontal network and voice applications in a structured cabling network to connect between the user outlet and horizontal cross-connect.

## Features

- Supports 10Base-T, 100Base-TX, 1000Base-T, Token Ring, Voice, Multimedia, 155 Mb/s ATM
- ETL Verified to TIA/EIA-568-B.2 Category 5e

CSC PART NO.	MFR. PART NO.	DESCRIPTION
498144	10032535	White, 4-Pair, 24 AWG, Non-Plenum, CAT 5e UTP, 1,000' Box
496522	10032528	Blue, 4-Pair, 24 AWG, Non-Plenum, CAT 5e UTP, 1,000' Box
496521	10032510	Grey, 4-Pair, 24 AWG, Non-Plenum, CAT 5e UTP, 1,000' Box

**Benefits** 

- · Universally accepted design for global commercial network installations
- Simplified structured cabling solution preserving long-term network investment
- · Warranted, trouble-free cabling installation and maintenance

CSC PART NO.	MFR. PART NO.	DESCRIPTION
130215	10032223	White, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box
548989	10032227	Blue, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box
497271	10032207	Grey, 4-Pair, 24 AWG, Plenum, CAT 5e UTP, 1,000' Box

## Hyper Plus 5e OSP

Hyper Plus 5e OSP UTP cables are designed for outside applications, either aerial or buried in conduit or duct, where building interconnections must be made. Fully water-blocked with UV-resistant jacket.

## **Features**

- Supports 10Base-T, 100Base-TX, 1000Base-T, Token Ring, Voice, Telephony, Multimedia, 155 Mbps ATM
- Meets ANSI/ICEA 5-56-434 Standard for Polyolefin Insulated Communications Cables for Outdoor Use
- ETL Verified to TIA/EIA-568-B.2 Category 5e

CSC PART NO.	MFR. PART NO.	DESCRIPTION
702121	10071496	Black, 4-Pair, 24 AWG, Gel-Filled UTP, 1,000' Reel



- Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- Simplified structured cabling solution preserving long-term network investment
- Warranted, trouble-free cabling installation and maintenance





## GigaSPEED X10D F/UTP Solution

The SYSTIMAX GigaSPEED F/UTP cabling system is designed to meet and exceed the ISO/IEC Class EA cabling specification. The solution has vastly improved performance across the complete frequency spectrum from 1 to 500 MHz.

By utilizing the unique design tools available to CommScope Labs, the technologies implemented in the SYSTIMAX GigaSPEED X10D F/UTP Solution are capable of incorporating the F/UTP technology while maintaining pair balance without degrading the internal channel transmission performance. Superior crosstalk performance, improved Insertion Loss performance, and guaranteed channel performance up to 500 MHz are the key enhancements that set the SYSTIMAX GigaSPEED X10D F/UTP Solution apart from other F/UTP solutions on the market today.

## GigaSPEED X10D F/UTP Twisted Pair Cable

## **Features and Benefits**

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11 801:2002 Class E<sub>A</sub>, and ANSI/TIA-568-C.2 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- · 4-pair construction with aluminum foil tape and isolator center member provides extra margin of performance required for high-bandwidth applications
- 1291 Non-Plenum cable is ETL Listed as CMR and CMG; this cable is constructed with a single jacket
- 2291 Plenum cable is ETL Listed as CMP; this cable is constructed with a single jacket
- 3291 LSZH cable meets the requirements of IEC 60332-3; this cable is constructed with a single jacket
- ETL Listed 1291 Riser rated CMR and CMG
- Can support network line speeds up to at least 10 Gbps
- Qualifies for the SYSTIMAX 20-Year Extended Product Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Non-Plenum		
828282	760081364	1291B BL 4/23 R1000 — Blue
828285	760081372	1291B GR 4/23 R1000 — Green
828288	760081380	1291B OR 4/23 R1000 — Orange
828290	760081398	1291B SL 4/23 R1000 — Slate
828291	760081406	1291B WH 4/23 R1000 — White

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Plenum		
873991	760122630	2291B BL 4/23 R1000 — Blue
873992	760122655	2291B SL 4/23 R1000 — Slate
873993	760122648	2291B WH 4/23 R1000 — White

## MarineGUARD™ LSZH Shipboard Cable Category 6, Category 5E, and Category 5e CMG-LS Rated



The MarineGUARD line of cables delivers network signals to a range of vessels, including oil carriers, bulk carriers, and container and cargo carriers. The LSZH cables deliver audio and video functions, including computer networks, PoE (Power over Ethernet), and VoIP (Voice over Internet Protocol). Available in Category 6, 5E, and 5e, the four-pair cables are constructed with #24 solid bare copper insulated conductors. Category 6 cable has an enhanced SCTP construction with patented FlexWeb core separator. Category 5E and 5e cables have a SFTP (Screened Twisted pair) construction.

## Features

- Constructed with #24 AWG solid bare copper with insulated conductors with an overall foil and braided shield (SFTP) under an overall jacket
- Category 6 has enhanced twisted pair construction with patented FlexWeb core separator isolating the pairs for superior electrical performance
- · CMG-LS (low-smoke) rated for general purpose communications use in accordance with Article 800 of National Electrical Code (NEC)
- Category 6 tested to 650 MHz, Category 5E tested to 400 MHz, and Category 5e tested to 200 MHz; supported applications up to IEEE 802.3 1000BASE-T (Gigabit Ethernet)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations



- Low Smoke Zero Halogen (LSZH) cables deliver quality audio and video signals for all marine vessels
- Communication applications include computer networks, PoE (Power over Ethernet), and VoIP (Voice over Internet Protocol)
- SCTP construction ensures optimum performance with reduced interference and cross talk

CSC PART NO.	MFR. PART NO.	DESCRIPTION
MarineGUARD 4	4-Pair F/UTP LSZH	
947845	M58775	Category 6
947847	M58784	Category 5E
947846	M58776	Category 5e













## GigaLAN 10<sup>®</sup> Augmented Category 6 4-Pair UTP Plenum/Riser Cable

GigaLAN 10 Augmented Category 6 UTP is a high-performance data cable supporting 10G BASE-T (10 Gigabit Ethernet) applications over a full 100m 4-connector channel while providing stability across the entire 750 MHz frequency range. GigaLAN 10's patented design incorporates FlexWeb® core separator and fluted jacket, maximizing Alien Crosstalk performance.





### Features

- Constructed with #23 AWG solid bare copper with insulated conductors and FlexWeb core separator with a ripcord under a fluted jacket
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Supports IEEE 802.3 Ethernet applications, including 10GBASE-T (10 Gigabit Ethernet) and IEEE 802.3af Power over Ethernet for VoIP

## Benefits

MED DADT NO

- Patented FlexWeb® core separator offers superior protection from crosstalk, return loss, and insertion loss
- Provides superior high-bandwidth performance for current and future data requirements with one installation
- Cost-effective cable for high bandwidth applications from desktop to data centers

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
GigaLAN 10 Ca	tegory 6a 4-Pair UTI	P Plenum (CMP)	
751996	M58647	White, 1,000' Reel	
751995	M58646	Blue, 1,000' Reel	
947531	M58682	Pink, 1,000' Reel	
762742	M58648	Yellow, 1,000' Reel	
769576	M58649	Grey, 1,000' Reel	
947532	M58683	Green, 1,000' Reel	
947533	M58684	Red, 1,000' Reel	
947534	M58685	Orange, 1,000' Reel	
947535	M58686	Black, 1,000' Reel	
851915	M58687	Violet, 1,000' Reel	

COC PARI	NU. WIFK. PAKI NU.	DESCRIPTION	
GigaLAN	10 Category 6a 4-Pair Ui	TP Riser (CMR)	
751999	M58651	White, 1,000' Reel	
751997	M58650	Blue, 1,000' Reel	
947840	M58688	Pink, 1,000' Reel	
769577	M58652	Yellow, 1,000' Reel	
769579	M58653	Grey, 1,000' Reel	
947841	M58689	Green, 1,000' Reel	
947842	M58690	Red, 1,000' Reel	
947843	M58691	Orange, 1,000' Reel	
947844	M58692	Black, 1,000' Reel	
947536	M58693	Violet, 1,000' Reel	

DESCRIPTION

NOTE: Custom colors available; contact your local CSC Representative for ordering information.

## GigaLAN® Category 6E UTP Plenum and Riser Cable

GigaLAN is one of the highest performance UTP cables available today. The cable is Mohawk's high-grade Category 6 UTP cable tested to 750 MHz and verified to TIA/EIA 568-B.2-1 Category 6. GigaLAN is constructed with patented FlexWeb® core separator that isolates the pairs throughout the length of the cable and enhances the pair-to-pair balance for superior crosstalk, LCL, and LCTL performance.

## **Features**

- Constructed with #23 AWG solid bare copper with insulated conductors and FlexWeb core separator with a ripcord under an overall jacket
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2-1

CSC PART NO.	MFR. PART NO.	DESCRIPTION
GigaLAN Category	y 6 4-Pair Plenum (	(CMP)
462314	M57413	White, 1,000' Reel
477112	M57414	Blue, 1,000' Reel
947837	M57750	Pink, 1,000' Reel
529379	M57415	Yellow, 1,000' Reel
568977	M57417	Grey, 1,000' Reel
526301	M57416	Green, 1,000' Reel
700122	M57620	Red, 1,000' Reel
708394	M57861	Orange, 1,000' Reel
706939	M57866	Black, 1,000' Reel
751888	M57860	Violet, 1,000' Reel



## Benefits

CC DADT NO

- Patented FlexWeb® core separator offers superior protection from crosstalk, return loss, and insertion loss
- 34% increase in power due to lower insertion loss characteristics at 100 MHz and greater than 50% at 250 MHz than Category 6
- Available in ten standard colors to enable easy identification of multiple applications within one facility
- 7 dB minimum improvement in Near End Crosstalk vs. Category 6 NEXT

CSC PART NO.	MFR. PART NO.	DESCRIPTION
GigaLAN Category	y 6 4-Pair Riser (CM	IR)
502684	M57418	White, 1,000' Reel
420440	M57419	Blue, 1,000' Reel
781386	M57867	Pink, 1,000' Reel
548044	M57420	Yellow, 1,000' Reel
542177	M57422	Grey, 1,000' Reel
579802	M57421	Green, 1,000' Reel
579803	M57621	Red, 1,000' Reel
702072	M57868	Orange, 1,000' Reel
702073	M57869	Black, 1,000' Reel
788377	M57870	Violet, 1,000' Reel

NOTE: Custom colors available; contact your local CSC Representative for ordering information. Packaging options include Reel-in-a-Box and Reel.

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## AdvanceNet® Category 6e+ UTP Plenum and Riser Cable

AdvanceNet is Mohawk's Category 6 mid-grade UTP cable tested to 650 MHz and ETL verified to TIA/EIA 568-B.2-1 Category 6. AdvanceNet is constructed with Mini FlexWeb® core separator that isolates the pairs throughout the length of the cable. The enhanced performance parameters include 13 dB minimum NEXT protection vs Category 5e. It is available in installation-friendly box packaging.

## Features

- Constructed with #23 AWG solid bare copper with insulated conductors and FlexWeb core separator with a ripcord under an overall jacket
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2-1

### Benefits

- Patented FlexWeb® core separator offers superior protection from crosstalk, return loss, and insertion loss
- Installer-friendly high performance cable with smaller O.D.
- Available in ten standard colors to enable easy identification of multiple applications within one facility

CSC PART NO.	MFR. PART NO.	DESCRIPTION	CSC PART NO.	MFR. PART NO.	DESCRIPTION
AdvanceNet Ca	tegory 6 4-Pair Plei	num (CMP)	AdvanceNet Ca	ntegory 6 4-Pair Risc	er (CMR)
467278	M56905	White, 1,000' Reel	332764	M56889	White, 1,000' Reel
529721	M57193	Blue, 1,000' Reel	330330	M57202	Blue, 1,000' Reel
524931	M57194	Pink, 1,000' Reel	587251	M57203	Pink, 1,000' Reel
500738	M57195	Yellow, 1,000' Reel	549539	M57204	Yellow, 1,000' Reel
491932	M57196	Grey, 1,000' Reel	420181	M57205	Grey, 1,000' Reel
542536	M57197	Green, 1,000' Reel	330325	M57206	Green, 1,000' Reel
481127	M57198	Red, 1,000' Reel	330326	M57207	Red, 1,000' Reel
543123	M57199	Orange, 1,000' Reel	421015	M57208	Orange, 1,000' Reel
587241	M57200	Black, 1,000' Reel	587247	M57209	Black, 1,000' Reel
587239	M57201	Violet, 1,000' Reel	330327	M57210	Violet, 1,000' Reel

NOTE: Custom colors available; contact your local CSC Representative for ordering information. Packaging options include Box, Reel-in-a-Box, and Reel.

## Category 6 4-Pair F/UTP Plenum/Riser Cable

Mohawk Category 6 F/UTP 4-pair cable is tested to 550 MHz and third-party verified to Category 6. The FlexWeb® pair isolator and foil-backed shield over the cable core offer EMI/RFI isolation in electrically noisy environments. The FlexWeb design isolates the pairs throughout the length of the cable, delivers 9dB minimum NEXT protection vs. Category 5e, and provides a round installer-friendly cable.

- Constructed with #23 AWG solid bare copper with insulated conductors, FlexWeb Core separator, overall foil and drain shield, ripcord, and an overall jacket
- · Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2-1

# MOHAWK ADVANCENET (T)

## **Benefits**

- F/UTP design and patented FlexWeb core separator provide EMI/RFI isolation in electronically noisy environments
- Supports up to 1000BASE-T (Gigabit Ethernet)
- Use of shielded or screened connecting hardware is recommended

CSC PART NO.	MFR. PART NO.	DESCRIPTION	CSC PART NO.	MFR. PART NO.	DESCRIPTION
Category 6 4-Pa	air F/UTP Plenum (	(CMP)	Category 6 4-F	Pair F/UTP Riser (CMR)	
708858	M58175	White, 1,000' Reel	766664	M58155	White, 1,000' Reel
752497	M58176	Blue, 1,000' Reel	752445	M58156	Blue, 1,000' Reel
761952	M58177	Pink, 1,000' Reel	765390	M58157	Pink, 1,000' Reel
756140	M58178	Yellow, 1,000' Reel	764364	M58158	Yellow, 1,000' Reel
733331	M58179	Grey, 1,000' Reel	768564	M58159	Gray, 1,000' Reel
750037	M58180	Green, 1,000' Reel	761494	M58160	Green, 1,000' Reel
580673	M58181	Red, 1,000' Reel	706469	M58161	Red, 1,000' Reel
764449	M58182	Orange, 1,000' Reel	788576	M58162	Orange, 1,000' Reel
761733	M58183	Black, 1,000' Reel	774750	M58163	Black, 1,000' Reel
786448	M58184	Violet, 1,000' Reel	857942	M58164	Violet, 1,000' Reel

NOTE: Custom colors available: contact your local CSC Representative for ordering information.











## 6 LAN™ Category 6 4-Pair UTP Plenum/Riser Cable

6 LAN is Mohawk's Category 6 entry-grade UTP cable tested to 550 MHz and ETL verified to TIA/EIA 568-B.2-1 Category 6. 6 LAN offers optimum data transmission performance solutions with flat tape core separator construction, 9 dB minimum NEXT protection vs. Category 5e, and installation-friendly box packaging.





## **Features**

- Constructed with #24 AWG solid bare copper with insulated conductors
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2-1

## Benefits

- Flat tape core separator offers protection from crosstalk, return loss, and insertion loss
- Available in ten standard colors to enable easy identification of multiple applications within one facility
- Flat tape design and smaller O.D. allow more cables to be installed within one specific conduit

CSC PART NO.	MFR. PART NO.	DESCRIPTION	CSC PART NO.	MFR. PART NO.	DESCRIPTION
6 LAN Category	6 4-Pair Plenum (	(CMP)	6 LAN Category	6 4-Pair Riser (CM	1R)
591758	M58280	White, 1,000' Reel	754308	M58291	White, 1,000' Reel
592867	M58281	Blue, 1,000' Reel	756600	M58292	Blue, 1,000' Reel
786103	M58282	Pink, 1,000' Reel	947838	M58293	Pink, 1,000' Reel
766076	M58283	Yellow, 1,000' Reel	775699	M58294	Yellow, 1,000' Reel
707555	M58285	Grey, 1,000' Reel	775698	M58295	Grey, 1,000' Reel
819211	M58286	Green, 1,000' Reel	776197	M58296	Green, 1,000' Reel
809153	M58287	Red, 1,000' Reel	749273	M58297	Red, 1,000' Reel
761041	M58288	Orange, 1,000' Reel	775697	M58298	Orange, 1,000' Reel
774407	M58289	Black, 1,000' Reel	775700	M58299	Black, 1,000' Reel
786102	M58290	Violet, 1,000' Reel	947839	M58300	Violet, 1,000' Reel

NOTE: Custom colors available; contact your local CSC Representative for ordering information. Packaging options include Box, Reel-in-a-Box, and Reel.

## VersaLAN® Category 6 and 5E 4-Pair UTP Indoor/Outdoor (CM Rated) Cable

VersaLAN Category 6 and Category 5e Indoor/Outdoor rated cable extends Ethernet networks into previously restricted ground. The innovative products combine traditional indoor category data transmission of 1GbE bandwidth with sturdy water-blocked construction of outside plant cable. The construction expands installation options where standard cable fails, including runs between buildings, indoor flood-prone locations, and outdoor use in duct and aerial lashing. The cable also performs in demanding and harsh marine applications.

## **Features**

- Fully water-blocked with black sunlight-resistant jacket
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2-1
- Supports up to IEEE 802.3 1000BASE-T (Gigabit Ethernet) applications
- · Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations

- Flexible and cost-effective installations for numerous indoor/outdoor application environments
- Indoor/Outdoor cable design withstands harsh elements and indoor flood-prone environments
- Eliminates need for numerous cable types for multiple environments

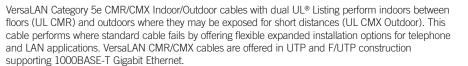


CSC PART NO.	MFR. PART NO.	DESCRIPTION	
VersaLAN 4-Pa	ir UTP Indoor/Outdo	or CM, Black	
805633	M58772	Category 6	
808117	M58762	Category 5E	





## VersaLAN® Category 5e CMR/CMX Indoor/Outdoor UTP and F/UTP Cable





## **Features**

- · Traditional indoor 4-pair UTP construction with the durable jacket of outside plant cable
- Eliminates numerous cable types for multiple environments
- · Combined CMR/CMX rating provides fire resistance of CMR and weather protection of CMX
- Easy installation with reverse sequential footage markers
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations



## **Benefits**

- Eliminates need to purchase CMR indoor and CMX outdoor cables by combining both listings in one cable
- Flexible and cost-effective telephone and LAN solution for numerous environments
- Also available in F/UTP, which provides EMI/RFI isolation in electrically noisy environments

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
VersaLAN Ca	ategory 5e CMR/CMX		
947537	M58926	UTP	
880756	M58932	F/UTP	

## MegaLAN® Category 5E 4-Pair F/UTP Plenum/Riser Cable

MegaLAN Category 5E F/UTP 4-pair cable is tested to 400 MHz and third-party verified to Category 5e. The cable is constructed with a screen twisted pair design that offers EMI/RFI isolation in electrically noisy environments. MegaLAN F/UTP is engineered to install in high external noise locations and delivers 5 dB minimum NEXT protection vs. Category 5e.

## Features

- Constructed with #24 AWG solid bare copper with insulated conductors, overall foil and drain shield, and an overall jacket
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2



## Renefits

- · F/UTP design provides EMI/RFI isolation in electronically noisy environments
- Supports up to 1000BASE-T (Gigabit Ethernet)
- Use of shielded or screened connecting hardware is recommended

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
Category 5E 4-	Pair F/UTP Plenum	(CMP)	
540504	M55986	White, 1,000' Reel	
559654	M57360	Blue, 1,000' Reel	
788172	M57322	Pink, 1,000' Reel	
754450	M57361	Yellow, 1,000' Reel	
592111	M57362	Grey, 1,000' Reel	
760492	M57363	Green, 1,000' Reel	
751906	M57364	Red, 1,000' Reel	
706992	M57365	Orange, 1,000' Reel	
947834	M57366	Black, 1,000' Reel	
947835	M57367	Violet, 1,000' Reel	

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
Category 5E 4-	Pair F/UTP Riser (C	MR)	
498414	M55987	White, 1,000' Reel	
776047	M57370	Blue, 1,000' Reel	
737435	M57371	Pink, 1,000' Reel	
784226	M57372	Yellow, 1,000' Reel	
767030	M57373	Grey, 1,000' Reel	
787807	M57374	Green, 1,000' Reel	
589838	M57375	Red, 1,000' Reel	
787806	M57376	Orange, 1,000' Reel	
786840	M57377	Black, 1,000' Reel	
947836	M57378	Violet, 1,000' Reel	

NOTE: Custom colors available; contact your local CSC Representative for ordering information.





## 5e LAN® Category 5e 4-Pair UTP Plenum/Riser Cable

5e LAN is Mohawk's Category 5e entry-grade UTP cable tested to 200 MHz and ETL verified to TIA/EIA 568-B.2 Category 5e. 5e LAN is tested for all specified parameters, including Power Sum Near End Cross Talk (PS-NEXT) and 4 dB minimum improvement in NEXT vs. Category 5. It includes installation-friendly box packaging.

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### Features

- Constructed with #24 AWG solid bare copper with insulated conductors
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2

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## **Benefits**

CCC DART NO

- 4 dB minimum improvement in NEXT vs. Category 5
- Available in ten standard colors to enable easy identification of multiple applications within one facility
- · All four pairs are FEP insulated; jacket is lead free

MED DART NO

CSC PART NO.	MFR. PART NO.	DESCRIPTION				
5e LAN Category 5e 4-Pair Plenum (CMP)						
531375	M57547	White, 1,000' Reel				
525458	M57546	Blue, 1,000' Reel				
782213	M57548	Pink, 1,000' Reel				
564803	M57550	Yellow, 1,000' Reel				
561141	M57545	Grey, 1,000' Reel				
512700	M57551	Green, 1,000' Reel				
549837	M57887	Red, 1,000' Reel				
585950	M57924	Orange, 1,000' Reel				
491940	M57936	Black, 1,000' Reel				
579090	M57761	Violet, 1,000' Reel				

GOG PART NU.	WIFK. PAKI NU.	DESCRIPTION	
5e LAN Categor	ry 5e 4-Pair Riser (	CMR)	
526134	M57554	White, 1,000' Reel	
518057	M57553	Blue, 1,000' Reel	
858875	M57555	Pink, 1,000' Reel	
546254	M57556	Yellow, 1,000' Reel	
546143	M57552	Grey, 1,000' Reel	
542491	M57557	Green, 1,000' Reel	
529644	M58008	Red, 1,000' Reel	
708718	M58009	Orange, 1,000' Reel	
702646	M58010	Black, 1,000' Reel	
791137	M58007	Violet, 1,000' Reel	

DESCRIPTION

NOTE: Custom colors available; contact your local CSC Representative for ordering information. Packaging options include Box, Reel-in-a-Box, and Reel.

## MegaLAN® Category 5E UTP Plenum and Riser Cable

MegaLAN is Mohawk's enhanced Category 5e UTP cable tested to 400 MHz and ETL verified to TIA/EIA 568-B.2 Category 5e. MegaLAN is tested for all specified parameters, including Power Sum Near End Cross Talk (PS-NEXT) and 5 dB minimum improvement in NEXT vs. Category 5. It includes installation-friendly box packaging.

## **Features**

- Constructed with #24 AWG solid bare copper with insulated conductors
- Plenum rated cable for use in air handling ducts in accordance with Article 800 of the National Electrical Code (NEC®)
- Riser rated cable for use as vertical run in shaft and for general purpose communications in accordance with Article 800 of the National Electrical Code (NEC)
- Complies with EU-RoHS Directive 2002/95/EC (Restrictions on Hazardous Waste) Regulations
- Enhanced performance parameters all electrical characteristics proven to exceed TIA/EIA 568-B.2

CSC PART NO.	MFR. PART NO.	DESCRIPTION			
MegaLAN Category 6 4-Pair Plenum (CMP)					
403795	M55988	White, 1,000' Reel			
462300	M56168	Blue, 1,000' Reel			
571896	M56092	Pink, 1,000' Reel			
511602	M56093	Yellow, 1,000' Reel			
403793	M56882	Grey, 1,000' Reel			
535843	M56166	Green, 1,000' Reel			
540506	M56072	Red, 1,000' Reel			
550539	M56876	Orange, 1,000' Reel			
587266	M56877	Black, 1,000' Reel			
582659	M56878	Violet 1 000' Reel			



## Benefits

- 5 dB minimum improvement in NEXT vs. Category 5
- Available in ten standard colors to enable easy identification of multiple applications within one facility
- · All four pairs are FEP insulated; jacket is lead free

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
MegaLAN Categ	gory 6 4-Pair Riser	(CMR)	
403383	M55989	White, 1,000' Reel	
403376	M56167	Blue, 1,000' Reel	
472212	M56094	Pink, 1,000' Reel	
403384	M56095	Yellow, 1,000' Reel	
403378	M56746	Grey, 1,000' Reel	
403377	M56165	Green, 1,000' Reel	
501723	M56670	Red, 1,000' Reel	
561443	M56954	Orange, 1,000' Reel	
421016	M57129	Black, 1,000' Reel	
569743	M57048	Violet, 1,000' Reel	

NOTE: Custom colors available; contact your local CSC Representative for ordering information. Packaging options include Box, Reel-in-a-Box, and Reel.





## TX6<sup>™</sup> 10Gig<sup>™</sup> Shielded Copper Cable

## **Features and Benefits**

- Exceeds requirements of ANSI/TIA/EIA-568-C.2, IEEE 802.3an-2006, and ISO 11801 Class EA channel standards for supporting 10GBASE-T
- · Descending length cable markings enable easy identification of remaining cable, reducing installation time and cable scrap
- Exceeds requirements of ANSI/TIA-568-C.2 Category 6A and IEC 61156-5 Category 6A component standards
- Meets requirements of IEEE 802.af and IEEE 802.3at for PoE applications
- Third party tested to comply with ANSI/TIA/EIA-568B.2-10



For standard cable colors other than BU (Blue), replace suffix in part number with WH (White), (YL) Yellow, or IG (International Grey). See page 78 for Category 6A 10Gig<sup>™</sup> Shielded Jack Modules and Category 6A 10Gig<sup>™</sup> Shielded Patch Cords, and page 15 for Shielded Modular Patch Panels.



## 10Gain® XP Category 6A CMR/CMP

10Gain® XP, with its nonconductive Isolation Wrap offers a 3 dB margin over Alien Crosstalk (AXT) performance requirements in ANSI/TIA-568-C.2.



## **Features**

- Guaranteed 3 dB AXT margin
- UL® Verified Category 6A
- Nonconductive Isolation Wrap
- Nominal 0.295" diameter
- CableID<sup>™</sup> alpha numeric code printed every 2

- · Guaranteed AXT performance in virtually any installation environment
- Assures consistent, worry-free performance
- Provides substantially more AXT protection without grounding or bonding
- Allows higher cable density and smaller bend radius
- Saves time and simplifies cable identification

USU PAKI NU.	WIFK. PAKT NU.	DESCRIPTION
863790	6H-272-2A	10Gain XP Category 6A UTP Cable, 1,000' Plywood Reel, Blue, CMR
863792	6H-272-4A	10Gain XP Category 6A UTP Cable, 1,000' Plywood Reel, White, CMR
863793	6H-272-2B	10Gain XP Category 6A UTP Cable, 1,000' Plywood Reel, Blue, CMP
863794	6H-272-4B	10Gain XP Category 6A UTP Cable, 1,000' Plywood Reel, White, CMP

NOTE: Available in additional colors: grey, green, yellow, purple, red, and orange; contact your local CSC Representative for ordering information.

## Category 6A F/UTP (ScTP)

Category 6A F/UTP (ScTP) cable, swept out to 650 MHz, meets or exceeds ANSI/TIA-568-C.2 for Category 6A cables, a requirement for 10GBASE-T applications.

## Features

- Overall shielded core
- Exceeds ANSI/TIA-568-C.2 specification for Category 6A cable performance
- UL® Verified Category 6A
- CableID™ alpha numeric code printed every 2'
- QuickCount® marking system in feet and meters
- ColorTip<sup>™</sup> circuit identification system

## Benefits

- Protects against EMI/RFI
- Meets all 10GBASE-T application requirements with 18 dB typical margin Alien Crosstalk performance
- Assures Category 6A performance by a nationally recognized test lab
- Saves time and simplifies cable identification
- Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

CSC PART NO.	MFR. PART NO.	DESCRIPTION
863797	6F-272-2A	Category 6A F/UTP (ScTP) Cable, 1,000' Plywood Reel, Blue, CMR
863880	6F-272-4A	Category 6A F/UTP (ScTP) Cable, 1,000' Plywood Reel, White, CMR
863883	6F-272-2B	Category 6A F/UTP (ScTP) Cable, 1,000' Plywood Reel, Blue, CMP
263225	6F_272_/IR	Category 6A F/ITP (ScTP) Cable 1 000' Plywood Real White CMP

NOTE: Category 6A F/UTP (ScTP) Cable (CMP and CMR) is also available in additional colors: grey, green, yellow, purple, red, and orange; contact your local CSC Representative for ordering information.







## 10Gain® Category 6A CMR/CMP

10Gain® cable brings Category 6A UTP performance to a new level. This cable meets the internal and Alien Crosstalk performance requirements of ANSI/TIA-568-C.2 as tested in a 6-around-1 configuration.





- UL® Verified Category 6A
- Tested to 650 MHz
- Exceptional PSACR and PSAACRF (PSAELFEXT) performance
- CableID™ alpha numeric code printed every 2¹
- QuickCount® marking system in feet and meters
- ColorTip™ circuit identification system

## **Benefits**

- · Assures consistent, worry-free performance
- Assures ample bandwidth headroom
- Performance assurance for 10 Gigabit Ethernet and multiple high-bandwidth applications
- Saves time and simplifies cable identification
- Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

CSC PART NO.	MFR. PART NO.	DESCRIPTION
755784	6A-272-2A	10Gain Category 6A UTP Cable, 1,000' Plywood Reel, Blue, CMR
755787	6A-272-4A	10Gain Category 6A UTP Cable, 1,000' Plywood Reel, White, CMR
755778	6A-272-2B	10Gain Category 6A UTP Cable, 1,000' Plywood Reel, Blue, CMP
755783	6A-272-4B	10Gain Category 6A UTP Cable, 1,000' Plywood Reel, White, CMP

NOTE: Available in additional colors: grey, green, yellow, purple, red, and orange; contact your local CSC Representative for ordering information.

## Category 6+ ScTP (F/UTP)

Category 6+ ScTP (F/UTP) cable, with guaranteed performance out to 500 MHz, exceeds ANSI/TIA-568-C.2 for Category 6 cables.

## **Features**

- · Overall shielded core
- Guaranteed performance to 500 MHz
- Exceeds ANSI/TIA-568-C.2 specification for Category 6 cable performance
- UL® Verified Category 6
- CableID™ alpha numeric code printed every 2'

## **Benefits**

- Protects against EMI/RFI with 18 dB typical margin Alien Crosstalk performance
- Assures ample headroom for high bandwidth applications
- Allows for 10GBASE-T applications up to 55m
- Assures Category 6 performance by a nationally recognized test lab
- Saves time and simplifies cable identification

CSC PART NO.	MFR. PART NO.	DESCRIPTION
863886	6T-272-2A	Category 6+ ScTP (F/UTP) Cable, 1,000' Plywood Reel, Blue, CMR
863888	6T-272-4A	Category 6+ ScTP (F/UTP) Cable, 1,000' Plywood Reel, White, CMR
863889	6T-272-2B	Category 6+ ScTP (F/UTP) Cable, 1,000' Plywood Reel, Blue, CMP
863891	6T-272-4R	Category 6+ ScTP (F/IJTP) Cable 1 000' Plywood Reel White CMP

NOTE: Category 6+ ScTP (F/UTP) Cable (CMP and CMR) is also available in: grey, green, yellow, purple, red, and orange; contact your local CSC Representative for ordering information.

## DataGain® Category 6+ CMR/CMP

DataGain® cable provides the best value in Category 6+ cables in the market today. Its innovative design utilizes a T-Filler separator and its performance exceeds TIA/EIA Category 6 specifications.

## Features

- Guaranteed electrical performance to 400 MHz
- Guaranteed 3 dB margin in ACR and PSACR
- Tested to 550 MHz
- Warranted with numerous connectivity manufacturers
- CableID™ alpha numeric code printed every 2'
- QuickCount® marking system in feet and meters
- ColorTip<sup>™</sup> circuit identification system

## Ranafite

- Greater assurance of exceptional overall channel performance at a great value
- "Future-proofs" cable installation
- Assures ample bandwidth headroom
- · Offers flexibility in selection of connectivity solutions
- Saves time and simplifies cable identification
- · Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

CSC	MFR.		CSC	MFR.	
PART NO.	PART NO.	DESCRIPTION	PART NO.	PART NO.	DESCRIPTION
588176	66-246-2A	DataGain Category 6+ Cable, 1,000' BrakeBox, Blue, CMR	588053	66-246-2B	DataGain Category 6+ Cable, 1,000' BrakeBox, Blue, CMP
588181	66-246-4A	DataGain Category 6+ Cable, 1,000' BrakeBox, White, CMR	588059	66-246-4B	DataGain Category 6+ Cable, 1,000' BrakeBox, White, CMP
737462	66-272-2A	DataGain Category 6+ Cable, 1,000' Plywood Reel, Blue, CMR	737466	66-272-2B	DataGain Category 6+ Cable, 1,000' Plywood Reel, Blue, CMP
737464	66-272-4A	DataGain Category 6+ Cable, 1,000' Plywood Reel, White, CMR	737468	66-272-4B	DataGain Category 6+ Cable, 1,000' Plywood Reel, White, CMP
752510	66-240-2A	DataGain Category 6+ Cable, 1,000' POP™ Box, Blue, CMR	746378	66-240-2B	DataGain Category 6+ Cable, 1,000' POP™ Box, Blue, CMP
747837	66-240-4A	DataGain Category 6+ Cable, 1,000' POP™ Box, White, CMR	760073	66-240-4B	DataGain Category 6+ Cable, 1,000' POP™ Box, White, CMP

NOTE: DataGain Category 6+ Cable (CMP and CMR) is also available in additional colors: grey, green, yellow, purple, red, pink, and orange; contact your local CSC Representative for ordering information.







## NextGain® Category 6eX CMR/CMP

NextGain® Category 6eX cable offers 6 dB of margin (headroom) over base requirements of Category 6 NEXT standards, and maximizes bandwidth for today's leading edge applications and those of the future.

## **Features**

- Guaranteed NEXT of 6 dB greater than Category 6 requirements
- Guaranteed ACR of 30 dB at 100 MHz and 11.7 dB at 250 MHz
- Exceptional performance over Category 6 requirements
- Warranted with numerous connectivity manufacturers
- CableID™ alpha numeric code printed every 2'
- QuickCount® marking system in feet and meters
- ColorTip<sup>™</sup> circuit identification system

CSC Part No.	MFR. Part no.	DESCRIPTION
706922	54-246-2A	NextGain Category 6eX Cable, 1,000' BrakeBox, Blue, CMR
736946	54-246-4A	NextGain Category 6eX Cable, 1,000' BrakeBox, White, CMR
737469	54-272-2A	NextGain Category 6eX Cable, 1,000' Plywood Reel, Blue, CMR
737471	54-272-4A	NextGain Category 6eX Cable, 1,000' Plywood Reel, White, CMR



## **Benefits**

- "Future-proofing" the cable installation
- Performance assurance for multiple high-bandwidth applications (e.g., fast Ethernet, ATM, Gigabit Ethernet)
- Reduces BER, improving network efficiency
- Offers flexibility in selection of connectivity solutions
- Saves time and simplifies cable identification
- Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

CSC	MFR.	
PART NO.	PART NO.	DESCRIPTION
593664	54-246-2B	NextGain Category 6eX Cable, 1,000' BrakeBox, Blue, CMP
542144	54-246-4B	NextGain Category 6eX Cable, 1,000' BrakeBox, White, CMP
591125	54-272-2B	NextGain Category 6eX Cable, 1,000' Plywood Reel, Blue, CMP
584305	54-272-4B	NextGain Category 6eX Cable, 1.000' Plywood Reel, White, CMP

NOTE: NextGain Category 6eX (CMP and CMR) is also available in additional colors: grey, green, yellow, purple, red, and teal; contact your local CSC Representative for ordering information.

## Category 5e+ ScTP (F/UTP) CMR/CMP

Screen Twisted Pair (ScTP) shielded Category 5e+ cables have guaranteed performance out to 350 MHz and meet all applicable ANSI/TIA-568-C.2 requirements.

## Features

- Aluminum foil tape covers all 4-pairs
- Exceeds ANSI/TIA-568-C.2 for Category 5e cable performance
- Guaranteed performance to 350 MHz
- CableID™ alpha numeric code printed every 2'
- QuickCount® marking system in feet and meters
- ColorTip<sup>™</sup> circuit identification system

## Benefits

- Protects against EMI/RFI and provides greater security
- Assures compliance for all current networking applications (up to 1000BASE-T)
- Assures ample bandwidth headroom
- Saves time and simplifies cable identification
- Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

USC PART NU.	MFR. PARI NU.	DESCRIPTION
828372	5F-220-25	Category 5e+ F/UTP (ScTP) Cable, 1,000' Plywood Reel, Blue, CMR
779556	5F-220-45	Category 5e+ F/UTP (ScTP) Cable, 1,000' Plywood Reel, White, CMR
828375	5F-220-28	Category 5e+ F/UTP (ScTP) Cable, 1,000' Plywood Reel, Blue, CMP
821484	5F-220-48	Category 5e+ F/UTP (ScTP) Cable, 1,000' Plywood Reel, White, CMP

NOTE: Category 5e+ F/UTP (ScTP) Cable (CMP and CMR) is also available in: grey, green, yellow, red, orange, and ebony; contact your local CSC Representative for ordering information.

## Cobra Category 5e+ CMR/CMP

Cobra Category 5e+ CMR/CMP, the performance leader in its class, is ideal for installations that require true "future proofing" in channel performance.

## Features

- Guaranteed NEXT of 3 dB greater than ANSI/TIA-568-C.2 specification across frequency range
- · Guaranteed ACR of 19.5 dB at 100 MHz
- Exceptional PSNEXT, PSELFEXT, and PSACR over Category 5e
- CableID™ alpha numeric code printed every 2'
- QuickCount® marking system in feet and meters
- ColorTip™ circuit identification system

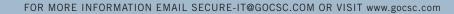
CSC PART NO.	MFR. Part no.	DESCRIPTION
514023	52-200-25	
314023	32-200-23	Cobra Category 5e+ Cable, 1,000' Reel-in-a-Box, Blue, CMR
571119	52-200-45	Cobra Category 5e+ Cable, 1,000' Reel-in-a-Box, White, CMR
500695	52-240-25	Cobra Category 5e+ Cable, 1,000' POP Box, Blue, CMR
16/137/	52_2/10_//5	Cohra Category Sout Cable 1 000' POP Roy White CMR

## Benefits

- Greater assurance of exceptional overall channel performance
- Performance assurance for multiple high-bandwidth applications
- Reduces BER, improving network efficiency
- Saves time and simplifies cable identification
- · Provides remaining length of cable on reel
- Provides a unique method of pair identification where the pair colors are identified by using a primary color, matched with a pastel shade

CSC	MFR.	
PART NO.	PART NO.	DESCRIPTION
507224	52-200-28	Cobra Category 5e+ Cable, 1,000' Reel-in-a-Box, Blue, CMP
477103	52-200-48	Cobra Category 5e+ Cable, 1,000' Reel-in-a-Box, White, CMP
496616	52-241-28	Cobra Category 5e+ Cable, 1,000' POP Box, Blue, CMP
106619	52 2/11 //2	Cobra Catagory So , Cable 1 000' POP Roy White CMP

NOTE: Cobra Category 5e+ Cable (CMP and CMR) is also available in: grey, green, yellow, purple, red, brown, orange, and ebony; contact your local CSC Representative for ordering information.













## Pre-Terminated Multi-Fiber Cable Series

Berk-Tek's pre-terminated fiber cables come in a wide variety of cable configurations and connector types. Each pre-terminated cable is custom built for specific performance requirements, application migration plans, and installations.





- Laser-optimized 62.5 micron and 50 micron optical fiber technology
- Tight buffer and loose tube cable constructions available
- · Factory terminated with SC, ST, LC, MTRJ, or MTP
- Fully customized lengths and breakouts
- Fully tested and labeled

- 10 Gb/s Ethernet and Fiber Channel performance to 600 meters with GIGAlite-10XB
- Fully compatible with legacy 62.5 micron and 50 micron fiber
- Lower installation cost, eliminate scrap
- Lower cost of ownership
- No cable preparation necessary; no installer termination errors



## **CSC PART NO.**

## MFR. PART NO.

### DESCRIPTION

Contact Your Local CSC Rep

Contact Your Local CSC Rep.

Factory Terminated Tight Buffered or Adventum, 2-432 Fibers

6 = MT-RJ Female (2 Fiber)3

7 = MTP Female (12 Fiber)<sup>3</sup> R = MTP Female (0.5 dB I.L.)<sup>3</sup>

N = No Connector Side A

S = Multimode LC Uniboot

H = Duplex SC/APC (With Addable/Removable Clip)

(Multimode or Singlemode)

8 = FC/PC 9 = MTRJ (Male)

I = FC/APC J = MT-RJ Female

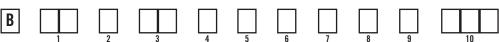
Q = ESCON

K = ST/UPC M = LC/APC Singlemode

N = No Connector Side A P = SC Uniboot

0 = FSCON

L = MTP Female (0.35 dB I.L.)3



## 1 Select Cable Type<sup>1</sup>

- AT = Adventum Tight Buffer
- (I/O, 2 Fiber, Loose Tube, Dry Block)

  AK = Adventum Tight Buffer with Interlocking Armor
- (I/O, 2 Fiber, Loose Tube, Dry Block)
- (I/O Loose Tube, 6–216 Fiber, Dry Block)2
- LK = Adventum with Interlocking Armor (I/O Loose Tube, 6–216 Fiber, Dry Block)2
- MD = Micro Data Center Loose Tube (Indoor Micro Loose Tube)
- MK = Micro Data Center Loose Tube Interlocking Armor (Indoor Micro Loose Tube)
- PD = Premises Distribution (Indoor, Tight Buffer, 6–144 Fiber)
- PK = Premises Distribution with Interlocking Armor
- (Indoor, Tight Buffer, 6–144 Fiber)
  RD = Ribbon Interconnect
  (Indoor, 12 Fiber Ribbon)
- 12 = Interconnect Round (Horizontal Cabling, Tight Buffer, 2 Fiber)
- 14 = Interconnect Round (Horizontal Cabling, Tight Buffer, 4 Fiber)

## 2 Select Cable Flame Rating

- P = Plenum (OFNP) R = Riser (OFNR)

## 3 Select Number of Fiber Strands<sup>1</sup>

- 02 = 2 Fiber (AT, AK, I2) 04 = 4 Fiber (I4, MD, MK)
- 06 = 6 Fiber (LT, LK, PD, PK) 12 = 12 Fiber (LT, LK, MD, MK, PD, PK, RD)
- 24 = 24 Fiber (LT, LK, MD, MK, PD, PK) 48 = 48 Fiber (LT, LK, MD, MK, PD, PK) 72 = 72 Fiber (LT, LK, MD, MK, PD, PK)

- 44 = 144 Fiber (LT, PD)
- 16 = 216 Fiber (LT)

## 4 Select Fiber Type

- C = 62.5/125 µm (200/500 MHz)
- Multimoder-CB3510/25
  G = 62.5/125 μm (200/500 MHz)
  GIGAlite™ Multimode-GB3510/25
  L = 50/125 μm (700/500 MHz)
- GIGAlite Multimode-LB3010/75 E = 50/125 µm (2000/500 MHz)
- GIGAlite-10 Multimode-EB3010/25 X = 50/125 µm (4900/500 MHz)
- GIGAlite-10XB Multimode-XB3010/X5 A = Singlemode-AB0707 when PD, PK, RD, I2 & I4,
- Singlemode-AB0403 when LT & LK for Hybrids Select MMF Type only

## 5 Select Connector Type for Side A (Outside/Pulling End)

## MULTIMODE

- 0 = MTP Male (12-Fiber)
- 1 = Simplex SC/PC 2 = Duplex SC/PC
- (With Addable/Removable Clip) Simplex LC/PC
- 4 = Duplex LC/PC
- (With Addable/Removable Clip)
- 5 = ST/PC

## SINGLEMODE

- 0=MTP Male (12-Fiber)
- 9 = MTRI (Male)
- A = Simplex SC/UPC B = Duplex SC/UPC
- (With Addable/Removable Clip)
  C = Simplex LC/UPC
- D = Duplex LC/UPC (With Addable/Removable Clip)
- E = MTP Female (12 Fiber)
- F = FC/UPC
- G = Simplex SC/APC

## HYBRIDS (MMF/SMF)

- Z = Simplex SC (PC/UPC)
- Y = Duplex SC (PC/UPC) (With Addable/Removable Clip)
- X = ST for Hybrids W = Simplex LC (PC/UPC)
- V = Duplex LC (PC/UPC) (With Addable/Removable Clip) U = MTP (Female)3
- T = FC (PC/UPC)

## N = No Connector Side A

## 6 Select Connector Type for Side B (Inside End)

Use Same Options from Section 5 N = No Connector Side B

## 7 Select Break-out Length Side A (Outside End)

F = 2.0 mm Furcation with Standard 39" Break-Out

## Available

S = 39" 900 Micron Break-Out

C = Custom (Contact CSC)

## **Custom Break-Outs Require a Desciptor**

N=No Break-Out, Connectors Side B not Selected Tolerances: +/- 2.0"

## 8 Select Break-Out Length Side B (Inside End)

F = 2.0 mm Furcation with Standard 39" Break-Out

## Available

= 39" 900 Micron Break-Out

C = Custom (CSC)

**Custom Break-Outs Require a Desciptor** N = No Break-Out, Connectors Side B not Selected Tolerances: +/- 2.0"

## 9 Select the Pre-Terminated Configuration<sup>4</sup>

- N = No Pulling Eye P = Pulling Eye Side A (Outside End) D = Pulling Eyes Both Sides
- Connector Stagger: 2.5" Nominal, Pulling Eye O.D.: 2.0"

## 10 Select Length of Cable in Feet

Example: 090 = 90', 300 = 300'

Standard Cable Lengths Available up to 300 m (984')

Additional Lengths Available

Cable Lengths are Measured from Break-Out Transition to Break-Out Transition

Tolerances are Listed on Assembly Drawing Reel Chart Available for Put-Up Configurations

## HYBRIDS (MMF/SMF)

A= Ub	C = 24	E = /2	G =
B = 12	D = 48	F = 96	H =
Substitute	Letter for Stran	id Count	
of Each Fi	ber Type; Select	MMF First	
Example: 4	48 MMF/24 SMF	= DC	

## **BERK-TEK Cable Standard Jacket Color Codes**

= 02

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CABLE	FIBER (SECTION 4)	FLAME Rating	JACKET COLOR
	C, G, L		Orange
LT, LK, MD, MK	E, X	Plenum	Aqua
(Loose Tube)	A		Yellow
	C, G, L, A, E, X	Riser	Black
AT, AK		Riser	
(Tight Buffered Loose	C, G, L, A, E, X	and	Black
Tube Indoor/Outdoor)		Plenum	
PD, PK, RD, I2, and I4 (Tight Buffered, Ribbon	C, G, L	Riser	Orange
Interconnect, Horizontal	E, X	and	Aqua
Interconnect 2 or 4 Fiber)	А	Plenum	Yellow

Other colors available; contact your local CSC representative

<sup>1</sup>Additional cables available; <sup>2</sup>Additional fiber counts available. <sup>3</sup>Secure Keyed MTP connectors available. <sup>4</sup>For maximum protection of the terminated inside cable end, a pulling eye on BOTH cable ends should be specified. For all options, contact your local CSC Representative.





## Plenum Ruggedized Ribbon Cable Assemblies

Corning Cable Systems Plenum Ruggedized Ribbon Cables are designed for intra-building backbones in plenum, riser, and general-purpose installations.

## **Features**

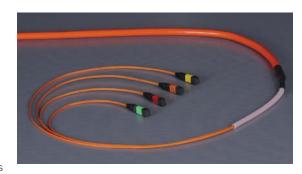
- · Dielectric cable construction requires no grounding or bonding
- Listed OFNP to meet the requirements of NEC® Article 770-51(A) and NFPA 262 flame tests
- Dielectric strength members provide tensile strength
- Available in OM1, OM2, OM3/OM4, OS2, and hybrid versions
- · Available in 12, 24, 36, or 48 fiber counts

## **Benefits**

- 12 fiber jacketed/numbered ruggedized ribbons provide secured protection
- Supplied preconnectorized for easy field installation and reduced labor costs
- · Compatible with standard ribbon cable procedures and hardware
- Precise fiber and ribbon geometries produce excellent mass splicing yields

NOTE: Contact your local CSC Representative for ordering information and product configuration.

## **CORNING**





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## **Custom Fiber Optic Assemblies**

Fibertron has been manufacturing custom fiber optic assemblies for over 20 years. Fibertron employs highly skilled and trained technicians who know the ins and outs of every connector...every fiber...every cable... allowing them to construct point-to-point assembly solutions, assemblies that are designed and built to meet customers' specific project needs and deployment specifications. The end result is significant cost and complexity savings and reduced risk of execution delays.





Fibertron manufactures a number of optical assembly products that offer significant benefits to secure network deployments, SCIF construction, and multiple-classification areas.

Pre-Terminated Plug & Play Mil Spec Outside Plant Solutions

Pre-Term Mil Spec OSP

Ready-to-deploy pre-term OSP fiber assemblies are customized to suit your needs.

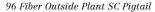
- Fibertron offers all connectors ST, LC, SC, and more that meet or exceed government Mil Spec for securing networking environments requiring quick deployment in OSP environments
- All assemblies come with protective pulling sleeves that provide maximum protection in rugged environments
- We help you design to your specifications, ensuring quick, safe, clean deployment

## **Benefits**

- · Speed of deployment
- Insured quality connections
- · Labor cost reduced
- Maximum protection







NOTE: Fibertron products are completely customized for each project to precisely match field requirements. As a result, Fibertron issues part numbers when the design is completed after an order is placed. Fibertron's experience working in the classified government arena is unsurpassed. Contact the Secure(it) Team for product configuration, part numbers, and pricing.

## Pre-Terminated Plug & Play Mil Spec TFOCA Assemblies

## **Pre-Term TFOCA Connectors**

The TFOCA connector is the most highly sought after Mil Spec connector for tactical deployments in harsh environments.

## **Features**

- · Extremely strong
- Highest level of protection in harsh environments
- Provides rapid deployment in difficult surroundings
- Designed for military tactical field use





NOTE: Fibertron products are completely customized for each project to precisely match field requirements. As a result, Fibertron issues part numbers when the design is completed after an order is placed. Fibertron's experience working in the classified government arena is unsurpassed. Contact the Secure(it) Team for product configuration, part numbers, and pricing.





## Make-to-Order (MTO) Fiber Cable Assemblies

Simplify fiber connection and termination with Leviton fiber cable assemblies. Choose from make-to-order (MTO) pre-terminated patch cords, trunks, harnesses, and pigtails.



## **Features**

- · Each cable assembly made-to-order
- Pre-terminated fiber eliminates the need for field terminations or splices
- Straight polarity harnesses available with SC, LC, MU, ST, or MT-RJ discrete connectors
- Laser-optimized patch cords are reverse polarity configured
- Individual 3m length pigtails and 12 fiber LOMM, MM, and SM pigtail kits also available in SC, LC, and ST



## Patch Cords

CSC PART NO.	MFR. PART NO.	DESCRIPTION
50/125 μm La	ser Optimized N	Multimode (OM3)
828987	5LDSC-M01	50/125 µm LOMM (OM3) Duplex Patch Cord, SC-SC, 1m
829073	5LDLC-M01	50/125 µm LOMM (OM3) Duplex Patch Cord, LC-LC, 1m
868758	5LDCL-M01	50/125 µm LOMM (OM3) Duplex Patch Cord, SC-LC, 1m
62.5/125 µm	Multimode (OM1	)
702821	62DSC-M01	62.5/125 µm MM (OM1) Duplex Patch Cord, SC-SC, 1m
702819	62DST-M01	62.5/125 µm MM (OM1) Duplex Patch Cord, ST-ST, 1m
828947	62DLC-M01	62.5/125 µm MM (OM1) Duplex Patch Cord, LC-LC, 1m
702822	62DCT-M01	62.5/125 µm MM (OM1) Duplex Patch Cord, SC-ST, 1m
828952	62DCL-M01	62.5/125 µm MM (OM1) Duplex Patch Cord, SC-LC, 1m
828919	62SSC-M01	62.5/125 µm MM (OM1) Simplex Patch Cord, SC-SC, 1m
828925	62SST-M01	62.5/125 µm MM (OM1) Simplex Patch Cord, ST-ST, 1m
828930	62SLC-M01	62.5/125 µm MM (OM1) Simplex Patch Cord, LC-LC, 1m
828935	62SCT-M01	62.5/125 µm MM (OM1) Simplex Patch Cord, SC-ST, 1m
828940	62SCL-M01	62.5/125 µm MM (OM1) Simplex Patch Cord, SC-LC, 1m

CSC PART NO.	MFR. PART NO.	DESCRIPTION
50/125 μm Mi	ultimode (OM2) _	
828970	50DSC-M01	50/125 µm MM (OM2) Duplex Patch Cord, SC-SC, 1m
828975	50DST-M01	50/125 μm MM (OM2) Duplex Patch Cord, ST-ST, 1m
828982	50DLC-M01	50/125 μm MM (OM2) Duplex Patch Cord, LC-LC, 1m
828957	50SSC-M01	50/125 μm MM (OM2) Simplex Patch Cord, SC-SC, 1m
828961	50SST-M01	50/125 μm MM (OM2) Simplex Patch Cord, ST-ST, 1m
828965	50SLC-M01	50/125 μm MM (OM2) Simplex Patch Cord, LC-LC, 1m
UPC Singlemo	ode (OS1)	
829144	UPDSC-S01	UPC SM Duplex Patch Cord, SC-SC, 1m
829149	UPDST-S01	UPC SM Duplex Patch Cord, ST-ST, 1m
829159	UPDLC-S01	UPC SM Duplex Patch Cord, LC-LC, 1m
829164	UPDCT-S01	UPC SM Duplex Patch Cord, SC-ST, 1m
829170	UPDCL-S01	UPC SM Duplex Patch Cord, SC-LC, 1m
828988	UPSSC-S01	UPC SM Simplex Patch Cord, SC-SC, 1m
829102	UPSST-S01	UPC SM Simplex Patch Cord, ST-ST, 1m
829109	UPSLC-S01	UPC SM Simplex Patch Cord, LC-LC, 1m
829119	UPSCT-S01	UPC SM Simplex Patch Cord, SC-ST, 1m
829128	UPSCL-S01	UPC SM Simplex Patch Cord, SC-LC, 1m
APC Singlemo	nde (OS1)	
823396	APSSC-S01	APC SM Simplex Patch Cord, SC-SC, 1m

NOTE: Additional make-to-order (MTO) pre-terminated trunks and harnesses available; contact your local CSC Representative for ordering information. Patch Cords are listed in 1m length. For other lengths, substitute "01" in the part number with "02", "03", "05", or "10" meters.

## Preterminated Copper Cable Assemblies

Custom-configure Leviton's copper shielded or UTP trunks. With every trunk order, you choose: category rating (Category 6A, 6, or 5e); cable type; breakout and overall length; jack, plug, or open termination; plug alignment; cable and jack color; and sleeve type.

## Features

- Leviton copper trunks are 100% factory-tested and shipped
- UTP connectors utilize Leviton's patented Retention Force Technology for consistent equipment reliability
- Plugs use clear SlimLine design with snagless strain relief boot
- · Customized breakout length from braided sleeve improves installation flexibility and appearance
- · Each assembly receives an individual serial number, and individual cables are numbered relative to that serial number

NOTE: Contact your local CSC Representative for assistance building your copper trunks.





## SYSTIMAX InstaPATCH® Cu — Copper Solution

SYSTIMAX Pre-terminated copper solutions provide pre-connectorized copper cable assemblies for your infrastructure needs.

InstaPATCH Cu features a high-density, factory connectorized, factory tested, modular connectivity system that allows installers to simply and quickly connect network components together. InstaPATCH Cu is designed to support locations such as data centers that require high density, rapid deployment and high performance. F/UTP and U/UTP solutions are available.

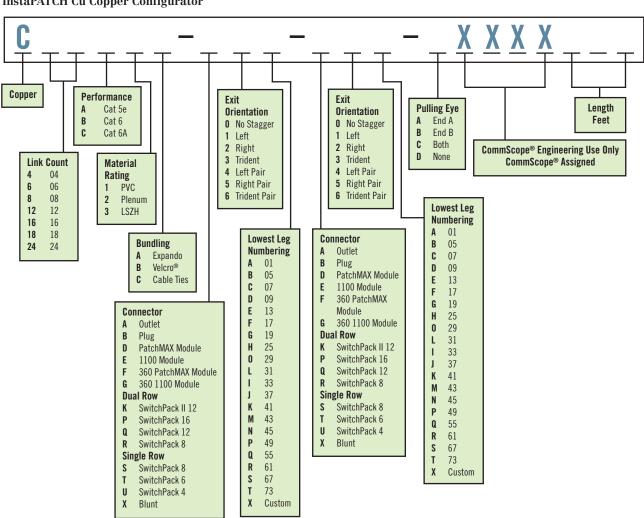
## **Features and Benefits**

- Speed install up to eight times faster than with traditional cabling
- Flexibility choose from multiple options for a variety of copper environments
- Reliability 20-year extended product warranty and industry-best applications assurance
- Scalability plan for and install the exact number of ports you need now; add further harnesses as you need them in the future
- Cost-control enjoy pricing stability through minimized variable costs on termination, troubleshooting, and rework
- Security decrease installation time in the critical data center spaces





## InstaPATCH Cu Copper Configurator























# The solutions featured on pages 64–78 include:

- Secure/Keyed Connections
- Color Coded
- High Density
- Port Protection
- Shielded

# **Connectivity**

Keyed/Fiber
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## Uniprise Keyed ReadyPATCH®

The ReadyPATCH Solution combines pre-terminated, factory-tested hardware and backbone trunk cables with ruggedized MPO single-fiber fanout patch cords, array cords, and standard fiber patch cords. The beauty of ReadyPATCH is that it allows installers to rapidly connect system components in a fraction of the time required with traditional field-terminable solutions. Since the solution enables up to 144 fibers to be ready for service at once, time-to-usability is accelerated dramatically, with factory-guaranteed performance. ReadyPATCH supports the deployment of both multimode and singlemode fiber in any data center. Uniprise offerings are designed to provide the right level of proven technology for customers concerned with reliability and performance for everyday applications. ReadyPATCH keyed products have special molded features on the connector plug and molded keys in the adapter to reduce the chance of unauthorized connections.







CSC PART NO.	MFR. PART NO.	DESCRIPTION
ReadyPATCH L	.C LazrSPEED® 3	300 12 Fiber Keyed Module
947710	9703814/00	RFE-MOD-012-5L-MPO-LC02-KAQ — Aqua
947706	9703809/00	RFE-MOD-012-5L-MPO-LC02-KBL — Blue
947712	9703816/00	RFE-MOD-012-5L-MPO-LC02-KBR — Brown
947707	9703810/00	RFE-MOD-012-5L-MPO-LC02-KGR — Green
947709	9703813/00	RFE-MOD-012-5L-MPO-LC02-KOR — Orange
880991	9703811/00	RFE-MOD-012-5L-MPO-LC02-KRD — Red
947711	9703815/00	RFE-MOD-012-5L-MPO-LC02-KRO — Rose
947713	9703817/00	RFE-MOD-012-5L-MPO-LC02-KSL — Slate
947714	9703818/00	RFE-MOD-012-5L-MPO-LC02-KVI — Violet
947708	9703812/00	RFE-MOD-012-5L-MPO-LC02-KYL — Yellow
		2 Fiber Keyed Module
947750	9703860/00	RFE-MOD-012-6F-MPO-LC02-KAQ — Aqua
947745	9703855/00	RFE-MOD-012-6F-MPO-LC02-KBL — Blue
947752	9703862/00	RFE-MOD-012-6F-MPO-LC02-KBR — Brown
947746	9703856/00	RFE-MOD-012-6F-MPO-LC02-KGR — Green
947749	9703859/00	RFE-MOD-012-6F-MPO-LC02-KOR — Orange
947747	9703857/00	RFE-MOD-012-6F-MPO-LC02-KRD — Red
947751	9703861/00	RFE-MOD-012-6F-MPO-LC02-KRO — Rose
947753	9703863/00	RFE-MOD-012-6F-MPO-LC02-KSL — Slate
947754	9703864/00	RFE-MOD-012-6F-MPO-LC02-KVI — Aqua
947748	9703858/00	RFE-MOD-012-6F-MPO-LC02-KYL — Yellow
•		12 Fiber Keyed Module
947730	9703837/00	RFE-MOD-012-8W-MPO-LC02-KAQ — Aqua
947725	9703832/00	RFE-MOD-012-8W-MPO-LC02-KBL — Blue
947732	9703839/00	RFE-MOD-012-8W-MPO-LC02-KBR — Brown
947726	9703833/00	RFE-MOD-012-8W-MPO-LC02-KGR — Green
947729	9703836/00	RFE-MOD-012-8W-MPO-LC02-KOR — Orange
947727	9703834/00	RFE-MOD-012-8W-MPO-LC02-KRD — Red
947731	9703838/00	RFE-MOD-012-8W-MPO-LC02-KRO — Rose
947733	9703840/00	RFE-MOD-012-8W-MPO-LC02-KSL — Slate
947734	9703841/00	RFE-MOD-012-8W-MPO-LC02-KVI — Violet
947728	9703835/00	RFE-MOD-012-8W-MPO-LC02-KYL — Yellow

CSC PART NO.	MFR. PART NO.	DESCRIPTION
ReadyPATCH L	<i>C LazrSPEED 300</i>	24 Fiber Keyed Module
947704	9703803/00	RFE-MOD-024-5L-MPO-LC02-KAQ — Aqua
947700	9703798/00	RFE-MOD-024-5L-MPO-LC02-KBL — Blue
947450	9706790/00	RFE-MOD-024-5L-MPO-LC02-KBL/BK — Blue/Black
854141	9703805/00	RFE-MOD-024-5L-MPO-LC02-KBR — Brown
947454	9706794/00	RFE-MOD-024-5L-MPO-LC02-KBR/BK — Brown/Black
947701	9703799/00	RFE-MOD-024-5L-MPO-LC02-KGR — Green
947453	9706793/00	RFE-MOD-024-5L-MPO-LC02-KGR/BK — Green/Black
947703	9703802/00	RFE-MOD-024-5L-MPO-LC02-KOR — Orange
854144	9703800/00	RFE-MOD-024-5L-MPO-LC02-KRD — Red
947451	9706791/00	RFE-MOD-024-5L-MPO-LC02-KRD/BK — Red/Black
854145	9703804/00	RFE-MOD-024-5L-MPO-LC02-KRO — Rose
947705	9703806/00	RFE-MOD-024-5L-MPO-LC02-KSL — Slate
947755	9705900/00	RFE-MOD-024-5L-MPO-LC02-KSL/BK — Slate/Black
854146	9703807/00	RFE-MOD-024-5L-MPO-LC02-KVI — Violet
947702	9703801/00	RFE-MOD-024-5L-MPO-LC02-KYL — Yellow
947452	9706792/00	RFE-MOD-024-5L-MPO-LC02-KYL/BK — Yellow/Black
		iber Keyed Module
947740	9703849/00	RFE-MOD-024-6F-MPO-LC02-KAQ — Aqua
947735	9703844/00	RFE-MOD-024-6F-MPO-LC02-KBL — Blue
947742	9703851/00	RFE-MOD-024-6F-MPO-LC02-KBR — Brown
947736	9703845/00	RFE-MOD-024-6F-MPO-LC02-KGR — Green
947739	9703848/00	RFE-MOD-024-6F-MPO-LC02-KOR — Orange
947737	9703846/00	RFE-MOD-024-6F-MPO-LC02-KRD — Red
947741	9703850/00	RFE-MOD-024-6F-MPO-LC02-KRO — Rose
947743	9703852/00	RFE-MOD-024-6F-MPO-LC02-KSL — Slate
947744	9703853/00	RFE-MOD-024-6F-MPO-LC02-KVI — Violet
947738	9703847/00	RFE-MOD-024-6F-MPO-LC02-KYL — Yellow
		iber Keyed Module
947720	9703826/00	RFE-MOD-024-8W-MPO-LC02-KAQ — Aqua
947715	9703821/00	RFE-MOD-024-8W-MPO-LC02-KBL — Blue
947722	9703828/00	RFE-MOD-024-8W-MPO-LC02-KBR — Brown
947716	9703822/00	RFE-MOD-024-8W-MPO-LC02-KGR — Green
947719	9703825/00	RFE-MOD-024-8W-MPO-LC02-KOR — Orange
947717	9703823/00	RFE-MOD-024-8W-MPO-LC02-KRD — Red
947721	9703827/00	RFE-MOD-024-8W-MPO-LC02-KRO — Rose
947723	9703829/00	RFE-MOD-024-8W-MPO-LC02-KSL — Slate
947724	9703830/00	RFE-MOD-024-8W-MPO-LC02-KVI — Violet
947718	9703824/00	RFE-MOD-024-8W-MPO-LC02-KYL — Yellow





## CommScope Keyed Connectors and Adapters

Today's facilities often employ more than one network and need mechanical security to limit access and prevent inadvertent cross-connection. The Uniprise Keyed LC Connectors and Adapters offer a tamper-proof design, reducing the chance of unauthorized connections. Ten connector-adapter combinations exist, identified by color, and in order for a connection to be possible, the connector and adapter colors must match. If the colors do not match, the keying features will prevent the connector from carrying the signal. Uniprise Keyed LC connectors will not mate with standard LC adapters, only the matching, same-color keyed adapter will mate with the keyed connector.

- Small form factor is half the size of standard connectors
- · RJ-style housing
- Single-fiber ferrule for maintaining proper polarity
- Pull-proof for jumper
- Available in Behind the Wall (BTW), Simplex Jumper, and Duplex Jumper versions

## **Benefits**

- Doubles density
- · Disengages easily in dense spaces
- · Maintains optical contact
- · Maintains transmit/receive direction

**COMMSCOPE®** 

 Helps minimize transmission problems





**Features** 



















CSC PART NO.	MFR. PART NO.	DESCRIPTION
Pre-Radiused	l Keyed LC Conne	ctor for 1.6mm Fiber, Duplex Multimode
947649	760102475	MDC-LCR-16-KAQ — Aqua
947648	760102434	MDC-LCR-16-KBL — Blue
944741	760102491	MDC-LCR-16-KBR — Brown
944798	760102442	MDC-LCR-16-KGR — Green
947652	760102525	MDC-LCR-16-KOR — Orange
875240	760102459	MDC-LCR-16-KRD — Red
944740	760102483	MDC-LCR-16-KRO — Rose
947650	760102509	MDC-LCR-16-KSL — Slate
947651	760102517	MDC-LCR-16-KVI — Violet
944780	760102467	MDC-LCR-16-KYL — Yellow
Pre-Radiused	d Behind The Wall	Keyed LC Connector for 0.9mm Fiber, Multimod
867479	760102582	MFC-LCR-09-KAQ — Aqua
879821	760102541	MFC-LCR-09-KBL — Blue
869477	760102608	MFC-LCR-09-KBR — Brown
947653	760102558	MFC-LCR-09-KGR — Green
947657	760102632	MFC-LCR-09-KOR — Orange
947654	760102566	MFC-LCR-09-KRD — Red
947655	760102590	MFC-LCR-09-KRO — Rose
947656	760102616	MFC-LCR-09-KSL — Slate
885572	760102624	MFC-LCR-09-KVI — Violet
869481	760102574	MFC-LCR-09-KYL — Yellow
Pre-Radiused	l Keyed LC Conne	ctor for 1.6mm Fiber, Simplex Multimode
873388	760102368	MFC-LCR-16-KAQ — Aqua
947639	760102327	MFC-LCR-16-KBL — Blue
947644	760102384	MFC-LCR-16-KBR — Brown
947640	760102335	MFC-LCR-16-KGR — Green
947647	760102418	MFC-LCR-16-KOR — Orange
947641	760102343	MFC-LCR-16-KRD — Red
947643	760102376	MFC-LCR-16-KRO — Rose
947645	760102392	MFC-LCR-16-KSL — Slate
947646	760102400	MFC-LCR-16-KVI — Violet
947642	760102350	MFC-LCR-16-KYL — Yellow

CSC PART NO.	MFR. PART NO.	DESCRIPTION
TeraSPEED®	Pre-Radiused Keyo	ed LC Connector for 1.6mm Fiber, Duplex Singlemode
947668	760102806	SDC-LCR-16-KAQ — Aqua
946026	760102764	SDC-LCR-16-KBL — Blue
947670	760102822	SDC-LCR-16-KBR — Brown
944781	760102772	SDC-LCR-16-KGR — Green
946028	760102855	SDC-LCR-16-KOR — Orange
885819	760102780	SDC-LCR-16-KRD — Red
947669	760102814	SDC-LCR-16-KRO — Rose
947671	760102830	SDC-LCR-16-KSL — Slate
947672	760102848	SDC-LCR-16-KVI — Violet
944782	760102798	SDC-LCR-16-KYL — Yellow
TeraSPEED B	Pehind The Wall Ke	eyed LC Connector for 0.9mm Fiber, Singlemode
947674	760102939	SFC-LCR-09-KAQ — Aqua
947673	760102897	SFC-LCR-09-KBL — Blue
947676	760102954	SFC-LCR-09-KBR — Brown
941454	760102905	SFC-LCR-09-KGR — Green
871242	760102988	SFC-LCR-09-KOR — Orange
941453	760102913	SFC-LCR-09-KRD — Red
947675	760102947	SFC-LCR-09-KRO — Rose
947677	760102962	SFC-LCR-09-KSL — Slate
947678	760102970	SFC-LCR-09-KVI — Violet
940772	760102921	SFC-LCR-09-KYL — Yellow
TeraSPEED P.	re-Radiused Keyel	d LC Connector for 1.6mm Fiber, Simplex Singlemode
947662	760102699	SFC-LCR-16-KAQ — Aqua
947658	760102657	SFC-LCR-16-KBL — Blue
947664	760102715	SFC-LCR-16-KBR — Brown
947659	760102665	SFC-LCR-16-KGR — Green
947667	760102749	SFC-LCR-16-KOR — Orange
947660	760102673	SFC-LCR-16-KRD — Red
947663	760102707	SFC-LCR-16-KRO — Rose
947665	760102723	SFC-LCR-16-KSL — Slate
947666	760102731	SFC-LCR-16-KVI — Violet
947661	760102681	SFC-LCR-16-KYL — Yellow

## Adapters



















CSC PART NO.	MFR. PART NO.	DESCRIPTION
LC Duplex Ke	yed Adapter	
947637	760090621	KFA-LC02-KAQ — Aqua, Single Pack
850492	760057190	KFA-LC02-KBL — Blue, Single Pack
869479	760090647	KFA-LC02-KBR — Brown, Single Pack
874473	760057208	KFA-LC02-KGR — Green, Single Pack
874472	760090670	KFA-LC02-KOR — Orange, Single Pack

CSC PART NO.	MFR. PART NO.	DESCRIPTION
872987	760057216	KFA-LC02-KRD — Red, Single Pack
946471	760090639	KFA-LC02-KRO — Rose, Single Pack
947638	760090654	KFA-LC02-KSL — Slate, Single Pack
875507	760090662	KFA-LC02-KVI — Violet, Single Pack
869483	760057224	KFA-LC02-KYL — Yellow, Single Pack





## **Keyed LC Solution**

Corning Cable Systems Keyed LC Connector Solution offers mechanical network security for organizations desiring to segregate networks due to privacy or security concerns.

## **Features**

- Eight color-coded key combinations prevent inadvertent or unauthorized access to networks and provide fast and easy network identification
- Keyed connectors on the front and back of the patch panel area are used to match access rights to the proper network
- SFF LC connector allows high-density deployment in less space than SC or ST® compatible connectors and supports up to 288 fibers in a 4U rack-mountable housing

### Renefits

- All-inclusive secure system encompassing keyed modules and jumpers as well as UniCam Connector technology for field termination
- The key features in the connector and adapter cannot be duplicated with standard LC components, preventing violation of network security
- Meets TIA/EIA-568-B, CEMELEC and ISO/IEC 11801 performance requirements
- Available in OS2, OM1, OM2, and OM3/OM4 versions

NOTE: Contact your local CSC Representative for ordering information and product configuration.







"We need access to a variety of secure networks, of varying type, all coming from the same area, and with the highest density. The Secure<sup>(it)</sup> Program provided us with keyed solutions to do just that."





## Fiber Connectors

### Features

- FastCAM® connectors are pre-polished for fast network deployment
- FastCAM connectors use precision mechanical termination with molded v-groove technology to retain and align the fiber
- Fast-Cure® connectors are anaerobic, adhesive-style, field-installable connectors
- · Fast-Cure connectors offer the most robust connection; ideal for outside plant applications







CSC PART NO.	MFR. PART NO.	DESCRIPTION
50/125 μm LOMM		
868774	49990-LSC	50 μm SC LO Multimode Connector, Fast-Cure
819756	49991-LSC	50 μm SC LO Multimode Connector, FastCAM
868776	49990-LDL	50 μm LC LO Multimode Connector, Fast-Cure
822824	49991-LLC	50 μm LC LO Multimode Connector, FastCAM
50/125 and 62.5/	125 μm MM	
583730	49990-MSC	50/62.5 µm SC Multimode Connector, Fast-Cure
780194	49991-MSC	62.5 µm SC Multimode Connector, FastCAM
800844	49991-5SC	50 μm SC Multimode Connector, FastCAM
565985	49990-MST	50/62.5 µm ST Multimode Connector, Fast-Cure
805141	49991-MST	62.5 µm ST Multimode Connector, FastCAM
810730	49991-5ST	50 µm ST Multimode Connector, FastCAM

CSC PART NO.	MFR. PART NO.	DESCRIPTION
50/125 and 62.5/1	25 μm MM (contin	ued)
590961	49990-MDL	50/62.5 µm LC Multimode Connector, Fast-Cure
810730	49991-MLC	62.5 µm LC Multimode Connector, FastCAM
809814	49991-5LC	50 µm LC Multimode Connector, FastCAM
SM		
562937	49990-SSC	SC Singlemode/UPC Connector, Fast-Cure
780191	49991-SSC	SC Singlemode/UPC Connector, FastCAM
702805	49990-SST	ST Singlemode/UPC Connector, Fast-Cure
802559	49991-SST	ST Singlemode/UPC Connector, FastCAM
702810	49990-SDL	LC Singlemode/UPC Connector, Fast-Cure
809992	49991-SLC	LC Singlemode/UPC Connector, FastCAM

NOTE: Additional SC, LC, and ST FastCAM, Fast-Cure, and Thread-Lock® connector styles available. Contact your local CSC Representative for ordering information.

## Leviton Make-to-Order (MTO) Secure Keyed LC System

Prevent unauthorized changes in sensitive applications, such as data centers, with Leviton's Secure Keyed LC System — the industry's only truly lockable LC system.

## Features

- Patent-pending design prevents unauthorized and inadvertent moves, add,
- Connectors plug into any industry-compliant LC duplex or quad adapters
- · Choice of eight unique keyed colors to segregate and secure networks
- Port protection plugs enable unused LC ports to be locked

- · Patch cords, pre-terminated trunks, pigtails, and pre-terminated harnesses are part of Leviton's extensive make-to-order (MTO) program
- · All components made in the U.S.A.





Trunk Cable

Port Protection Plugs

CSC PART NO.	MFR. PART NO.	DESCRIPTION
CALL	CALL	Make-to-Order (MTO) Secure Keyed LC Pre-Terminated Trunks
CALL	CALL	Make-to-Order (MTO) Secure Keyed LC Pre-Terminated Harnesses
CALL	CALL	Make-to-Order (MTO) Secure Keyed LC Patch Cords
CALL	CALL	Make-to-Order (MTO) Secure Keyed LC Pigtails
884032	PPRTN-WLG*	Port Protection Plug with Dust Cap, White
884035	ETRTN-WTL*	Extraction Tool with Dust Cap, White
879714	DUSTK-CAP	Dust Caps (bag of 10)
947529	4999K-WLC*	Secure Keyed LC Field Installable Connector (same colors are available)
947530	4999k-9AQ+	900 µm Boots (bag of 50)

<sup>\* =</sup> Port Protection Plug, Extraction Tool, and Secure Keyed LC Field Installable Connector listed in white. For other colors, substitute W in part number for yellow (Y), orange (O), red (R), blue (L), green (V), grey (S), or black (E).

For assistance configuring your make-to-order (MTO) Secure Keyed LC cable assemblies, contact your local CSC Representative.

Color-matched LC adapters also available, contact your local CSC Representative for ordering information.

<sup>+</sup> Boots listed in Aqua. For other colors, substitute AQ in part number for beige (BG), black (BK), and blue, (BL).





## Keyed LC OptiCam® Fiber Optic Connectors

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.

## **Features and Benefits**

- · Secure end-to-end keyed connectivity
- Unique key design provides strictest keying integrity available
- Color-coded key options allow flexibility and versatility
- Translucent housing assembly is laser marked to identify fiber stub fiber type
- Patented re-termination capability provides yield rates approaching 100%



Keyed LC OptiCam® Fiber Optic Connectors

862042 FLCSMCXABL LC (keyed A-black) OptiCam™ 10Gig™ 50/125 µm Multimode Simplex Fiber Optic Connector for 900  $\mu m$  Tight-Buffered Fiber Installation

NOTE: To order duplex connectors, replace the first "S" in the part number (FLC $\S$ SCABL) with a "D" (FLC $\S$ SCABL). 10Gig" 50/125  $\mu$ m OM3 shown. Additional connector types are available: 6=62.5/125  $\mu$ m OM1; 5=50/125  $\mu$ m OM2; X=0 9=9/125  $\mu$ m OSI/OS2. For other colors, replace "BL" with "RD" (Red), "GR" (Green), "YL" (Yellow), "OR" (Orange), "DB" (Dark Blue), "VL" (Violet), "AQ" (Aqua), "RO" (Rose), "IG" (Slate), "LB" (Brown), "WT" (White), "CG" (Charcoal), "LV" (Lavender), "PE" (Peach), "SB" (Steel Blue), "MA" (Maroon), "MI" (Mint).



The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.

## **Features and Benefits**

- · Patch cords are tested to support network transmission speeds up to 10 Gb/s for link lengths up to 300m
- Factory terminated and 100% tested for insertion loss
- Lifetime traceability of test data to a Q.C. number on each patch cord
- Unique key design provides strictest keying integrity available

MFR. PART NO. DESCRIPTION CSC PART NO. Opti-Core® Keyed LC to Keyed LC Patch Cords

FXE10A-10AM1

LC (keved A-black) to LC (keved A-black) Multimode Duplex Patch Cord, 1.6mm Jacketed Cable (one duplex keyed LC connector on each end),  $10 \text{Gig}^{\scriptscriptstyle\mathsf{TM}} \ 50/125 \ \mu\text{m}$ 

NOTE: Keyed LC patch cords and pigtails are available in 1–10m lengths in 1m increments, and 15m, 20m, and 30m lengths.  $10\text{Gig}^{\text{\tiny TD}}$   $50/125~\mu m$  0M3 shown. Additional fiber types are available:  $6=62.5/125~\mu m$  0M1,  $5=50/125~\mu m$  0M2;  $X = \text{ or } 9 = 9/125 \,\mu\text{m} \, \text{OS}1/\text{OS}2$ . For OFNP (Plenum) rated patch cords, add "P to the part number. Ex: FXPE10G-NM1. Plenum available in pigtails only. For other colors, replace "A" in both places within the part number F(A) = F(A) = F(A) for other colors, replace "A" in both places within the part number F(A) = F(A)

## Opti-Core® Keyed LC Pigtails

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.





## **Features and Benefits**

- Patch cords/pigtails are tested to support network transmission speeds up to 10 Gb/s for link lengths up to 300m
- Factory terminated and 100% tested for insertion loss
- Lifetime traceability of test data to a Q.C. number on each patch cord/pigtail
- Unique key design provides strictest keying integrity available

DESCRIPTION **CSC PART NO.** MFR. PART NO. Opti-Core® Keyed LC Pigtails FXB10A-NM1

LC (keyed A-black) to Pigtail Multimode Simplex Pigtail, 900 µm Buffered Fiber (one keyed LC connector on one end and open on the other end),  $10 \text{Gig}^{\text{TM}} 50/125 \ \mu\text{m}$ 

NOTE: Keyed LC pigtails are available in 1-10m lengths in 1m increments, and 15m, 20m, and 30m lengths. For OFNP (Plenum) rated patch cords, add "P" to the part number. Ex: FXPE10G-NM1. Plenum available in pigtails only. Additional fiber types are available:  $6 = 62.5/125 \mu m \ OM1$ ;  $5 = 50/125 \mu m \ OM2$ ;  $X = or 9 = 9/125 \mu m$ OS1/OS2.

"Fr (Orange), "E' (Orange), "C' (Green), "D' (Yellow), "E' (Orange), "F' (Dark Blue), "G' (Violet), "H' (Aqua), "J' (Rose), "K' (Slate), "L" (Brown), "P'' (White), "Q'' (Charcoal), "R'' (Lavender), "S'' (Peach), "T'' (Steel Blue), "V" (Maroon), "W" (Mint).

## OptiCore® Keyed LC to LC Patch Cords

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.



## **Features and Benefits**

- Patch cords are tested to support network transmission speeds up to 10 Gb/s for link lengths up to 300m
- Factory terminated and 100% tested for insertion loss
- Lifetime traceability of test data to a Q.C. number on each patch cord
- · Unique key design provides strictest keying integrity available

MFR. PART NO. CSC PART NO. DESCRIPTION OptiCore® Keyed LC to LC Patch Cords

FXE10A-10M1

LC (keyed A-black) to LC Multimode Duplex Patch Cord, 1.6mm Jacketed Cable (one duplex keyed LC connector on one end and one duplex LC connector on the other end), 10Gig<sup>™</sup> 50/125 μm

NOTE: Keyed LC patch cords and pigtails are available in 1–10m lengths in 1m Note: Reyed to Patch Color and pigians are available in 1-10in lengths in 11in increments, and 15m, 20m, and 30m lengths. 10Gig\*\* 50/125 µm 0M3 shown. Additional fiber types are available: 6 = 62.5/125 µm 0M1; 5 = 50/125 µm 0M2;  $X = \text{ or } 9 = 9/125 \ \mu\text{m} \ OS1/OS2.$  For OFNP (Plenum) rated patch cords, add "P \*\*N = 0.7 = 9.125 pm 0.51502. To Vor W (Telentally Takes patch colds, and Y to the part number. Ex: FXPE10F0.NM1. Plenum available in pigtails only.

For other colors, replace "A" with "B" (Red), "C" (Green), "D" (Yellow), "E" (Orange),

"F" (Dark Blue), "G" (Violet), "H" (Aqua), "J" (Rose), "K" (Slate), "L" (Brown),

"P" (White), "Q" (Charcoal), "R" (Lavender), "S" (Peach), "T" (Steel Blue),

"V" (Maroon), "W" (Mint).



## OptiCore® SC to Keyed LC Patch Cord

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.



## **Features and Benefits**

- Patch cords are tested to support network transmission speeds up to 10 Gb/s for link lengths up to 300m
- · Factory terminated and 100% tested for insertion loss
- · Lifetime traceability of test data to a Q.C. number on each patch cord
- Unique key design provides strictest keying integrity available

MFR. PART NO. DESCRIPTION OptiCore® SC to Keyed LC Patch Cord FXE3-10AM1

869182

SC to LC (keyed A-black) Multimode Duplex Patch Cord, 1.6mm Jacketed Cable (one duplex SC connector on one end and one duplex keyed LC connector on the other end), 10Gig™ 50/125 µm

NOTE: SC to Keyed LC patch cords are available in 1-10m lengths in 1m increments,

Note: Se to Negeo Le pactricoids are available in 1-10in lengths in 11m increments, and 15m, 20m, and 30m lengths.

For other colors, replace "A" with "B" (Red), "C" (Green), "D" (Yellow), "E" (Orange), "F" (Dark Blue), "G" (Violet), "H" (Aqua), "J" (Rose), "K" (Slate), "L" (Brown), "P" (White), "Q" (Charcoal), "R" (Lavender), "S" (Peach), "T" (Steel Blue), "V" (Maroon), "W" (Mint).

## Mini-Com® Keyed LC Fiber Duplex Adapter Modules

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.

## **Features and Benefits**

- Small form factor keyed LC duplex adapter design fits into single module space
- Provides a keyed senior adapter interface at each end
- Includes zirconia ceramic split sleeves for superior performance
- Unique key design provides strictest keying integrity available
- Every adapter is laser marked with Q.C. number to assure 100% traceability

CSC PART NO.	MFR. PART NO.	DESCRIPTION		
Mini-Com® Keyed LC Fiber Duplex Adapter Modules				
848156	CMD <u>ABL</u> LCZIW	Module Supplied with One LC (keyed A-black) Sr./Sr.		
		SFF Duplex Fiber Optic Adapter with Zirconia Ceramic		

Split Sleeves NOTE: For other module colors, replace suffix IW (Off White) with AW (Arctic White),

NOTE: For other module colors, replace surfix IW (Off Write) with AW (Arctic Write), BL (Black), BU (Blue), or El (Electric Ivory).

For other colors, replace "ABL" with "BRD" (Red), "CGR" (Green), "DYL" (Yellow), "EOR" (Orange), "FDB" (Dark Blue), "GVL" (Violet), "HAQ" (Aqua), "JRO" (Rose), "KIG" (Slate), "LLB" (Brown), "PWT" (White), "QCG" (Charcoal), "RLV" (Lavender), "SPE" (Peach), "TSB" (Steel Blue), "VMA" (Maroon), "WMI" (Mint).

## Opticom® Keyed LC Fiber **Duplex Adapter Panels**



The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.

## Features and Benefits

- Snaps quickly into the front of all Opticom® Components
- Provides a keyed senior adapter interface at each end Includes zirconia ceramic
- split sleeves for superior performance Unique key design provides strictest keying integrity available
- Every adapter is laser marked with Q.C.



869184

Opticom® Keyed LC Fiber Duplex Adapter Panels FAP6WABLDLCZ

Keyed LC FAP Loaded with Six LC (keyed A-black) Duplex Fiber Optic Adapters with Zirconia Ceramic Split Sleeves

NOTE: Keyed LC Fiber Duplex Adapter Panels (FAPs) are available in 8 and 12 fiber adapter panels. Replace the "6" FAP6WABLDLCZ, with an 8 or 12; FAP8WABLDLCZ or FAP12WABLDLCZ.
For other colors, replace "ABL" with "BRD" (Red), "CGR" (Green), "DYL" (Yellow), "EDR" (Orange), "FDB" (Dark Blue), "GVL" (Violet), "HAQ" (Aqua), "JRO" (Rose), "KIG" (Slate), "LLB" (Brown), "PWT" (White), "QCG" (Charcoal), "RLV" (Lavender), "SPE" (Peach), "TSB" (Steel Blue), "VMA" (Maroon), "WMI" (Mint).

For use in Panduit Fiber Enclosures.

## Keyed LC QuickNet™ MTP\* Fiber Optic Cassettes

The Keyed LC System prevents unauthorized access and ensures network security with color-specific keyed connectivity.

## **Features and Benefits**

- Low insertion loss of 0.5 dB max. per optimized cassette and 1.0 dB max. per standard cassette
- Factory terminated, assembled, and 100% tested
- Connect together with high-density female MTP\* cable assemblies as interconnecting network segments
- Unique key design provides strictest keying integrity available
- · Lifetime traceability of test data to a Q.C number on each fiber cassette

MFR. PART NO. DESCRIPTION Keyed LC QuickNet™ MTP\* Fiber Optic Cassettes 948140 FCX012-10**ABL** 

Six LC (keyed A-black) Duplex Adapters to One Male MTP\*: 12-Fiber Optimized Pre-Terminated MTP\* Cassette Provides Low Insertion Loss of 0.5 dB Max. per Fiber; 10Gig<sup>™</sup> 50/125 µm (OM3) Fiber

NOTE: Keyed LC QuickNet" MTP\* Fiber Optic Cassettes are also available in 12 duplex adapter, 24-fiber. Replace the "12" with "24": FCXO24-10ABL. \*MTP is a registered trademark of US Conec Ltd.

"For other colors, replace "ABL" with "BRD" (Red), "CGR" (Green), "DYL" (Yellow), "EOR" (Orange), "FDB" (Dark Blue), "GVL" (Violet), "HAQ" (Aqua), "JRO" (Rose), "KIG" (Slate), "LLB" (Brown), "PWT" (White), "QCG" (Charcoal), "RLV" (Lavender), "SPE" (Peach), "TSB" (Steel Blue), "VMA" (Maroon), "WMI" (Mint).

For use in Panduit Fiber Enclosures.

\*MTP is a registered trademark of US Conec Ltd.







## Secure RJ Copper System

Prevent unauthorized network changes in sensitive applications such as data centers with Leviton's Secure RJ System with locking connectors and port blockers.

# LEVITON

## **Features**

- Patent-pending design prevents unauthorized and unintentional port access
- Superior locking mechanism cannot be released without matching color extraction tool
- Available in eight color options to reserve, identify, segregate, and secure network ports
- Compatible with all industry standard RJ ports in network equipment, devices, patch panels, and work area outlets
- All components made in U.S.A.

## Benefits

- Works with high-density network equipment and 1RU 48-port patch panels
- Transparent polymer housing allows color-coding without blocking visibility to link/status LEDs on electronics
- Custom trunk and patch cord configurations available through Leviton's make-to-order (MTO) program



SRJPB-00R



Extraction tool (shown in all eight translucent colors)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
946492	SRJPB-00R	Secure RJ Port Blocker, Red Housing, 12-Pack
946493	SRJET-00R	Secure RJ Extraction Tool, Red Housing, One-Pack
946494	SRJ6R-05W	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, White Cord Jacket, 5' Length
946495	SRJ6R-10W	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, White Cord Jacket, 10' Length
946497	SRJ6R-20W	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, White Cord Jacket, 20' Length
946498	SRJ6R-05R	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Red Cord Jacket, 5' Length
946500	SRJ6R-10R	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Red Cord Jacket, 10' Length
946503	SRJ6R-20R	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Red Cord Jacket, 20' Length
946504	SRJ6R-05L	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Blue Cord Jacket, 5' Length
946505	SRJ6R-10L	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Blue Cord Jacket, 10' Length
946506	SRJ6R-20L	CAT 6 SlimLine Patch Cord, Secure RJ Housing on Both Ends, Red Housing, Blue Cord Jacket, 20' Length

NOTE: Models listed feature red translucent housing; also available in clear (W), yellow (Y), orange (O), blue (L), green (V), purple (P), and black (E).



"Our Agency needed the same level of protection we receive from keyed fiber connectors in a copper connector. The Secure<sup>(it)</sup> Program provided that for us."





### Fiber Express® Brilliance® Field-Installable Connector

Fiber Express Brilliance Field-Installable Connectors make reliable fiber terminations really fast and simple. Brilliant in their design and implementation, they are the only fiber optic connectors on the marketplace to offer reliable terminations in less than five seconds with NO termination tools needed.

- A fiber termination can be achieved in as little as five (5) seconds
- Splice and crimp takes place in one easy step reducing the number of termination steps by 50%
- No tools are required to terminate the fiber. With basic fiber preparation tools, you're ready to go
- The connector can be re-terminated up to five (5) times, offering improved connector termination yields, which means lower material costs and no connector waste
- The connector's window enables instant 100% installation feedback when using a Visual Fault Locator (VFL)









### Step 1:

Once the tight-buffered fiber is prepared for installation, insert the fiber into the connector.



Step 2:

Using your index finger, slide the connector's switch-like activator toward the fiber to bring about the splice and crimp.



### Step 3:

Slide the boot on the connector body. That's it! The termination of the fiber has been accomplished in three steps and in about five seconds!



Belden has developed three Installation Kits to enable installers to easily and cost effectively acquire or transition to Fiber Express Brilliance connector technology.

CSC PART NO.	MFR. PART NO.	DESCRIPTION		
FiberExpress® Brilliance® Field-Installable Connectors				
872817	AX104240-S1	LC, 900 µm, Multimode 62.5 µm, OM1, Beige, Single Connector		
872824	AX104241-S1	LC, 900 μm, Multimode 50 μm, OM2, Black, Single Connector		
872825	AX104242-S1	LC, 900 μm, Multimode 50 μm, OM3/OM4, Aqua, Single Connector		
872826	AX104243-S1	LC, 900 µm, Singlemode, OS2, Blue, Single Connector		
872823	AX104240-B25	LC, 900 µm, Multimode 62.5 µm, OM1, Beige, Bulk 25 Connectors		
872679	AX104241-B25	LC, 900 μm, Multimode 50 μm, OM2, Black, Bulk 25 Connectors		
872345	AX104242-B25	LC, 900 µm, Multimode 50 µm, OM3/OM4, Aqua, Bulk 25 Connectors		
872349	AX104243-B25	LC, 900 µm, Singlemode, OS2, Blue, Bulk 25 Connectors		
FiberExpress E	Brilliance Installation	ı Kits		
872827	AX104268	Basic Installation Kit		
872828	AX104270	Field Installation Kit		
872829	AX104271	Precision Installation Kit		

NOTE: SC and ST 900  $\mu$ m, LC, SC, and ST jacketed, as well as LC and SC APC versions will be added throughout 2010 and 2011.

Installation Kit items are also sold as individual components.

Fiber Express® Brilliance® Field-Installable Connectors are an integral part of an end-to-end Fiber Express Solution. The connector can be terminated on Fiber Express Cables (see page 30) and Pigtails, and interconnected by using Fiber Express Ultra Patch Panel (see page 21) and Fiber Express Manager 1U and 4U Shelves and Fiber Express 1U, 2U, 3U, and 4U Patch Panels. Complete the end-to-end fiber system with Fiber Express Pre-Connectorized Assemblies, workstation outlets (see page 97), and Belden Cable Management. Contact your local CSC Representative for more information.







### UniCam® and UniCam Pretium-Performance No-Epoxy/No-Polish Connectors

The UniCam and UniCam Pretium-Performance connectors enable field termination without the need for epoxy and polishing, eliminating much of the time and expense of traditional connectors. It incorporates a specially selected fiber stub that is fully bonded into the ferrule and precision polished at the factory. The other end of the stub is precisely cleaved and placed into an internal mechanical splice element flooded with inert index matching gel.

### Features/Benefits

- Installs in less than one minute on 900 µm fiber
- No consumables required
- Universal tool kit terminates multimode and singlemode fibers in ST® compatible, SC, and LC
- Excellent reflectance performance





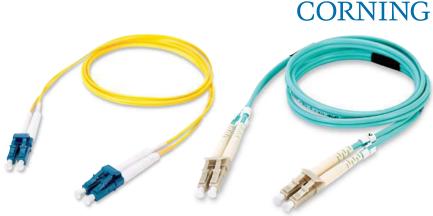


CSC PART NO.	MFR. PART NO.	DESCRIPTION		
316776	95-000-40	SC Composite Connector Type, MM 62.5 µm Fiber Type		
461832	95-000-41	SC Ceramic Connector Type, MM 62.5 μm Fiber Type		
495891	95-050-41	SC Ceramic Connector Type, MM 50 µm Fiber Type		
588985	95-050-41-X	SC Ceramic Connector Type, MM 50 µm Laser-Optimized Fiber Type		
324626	95-000-50	ST Compatible Composite Connector Type, MM 62.5 µm Fiber Type		
464642	95-000-51	ST Compatible Ceramic Connector Type, MM 62.5 µm Fiber Type		
495892	95-050-51	ST Compatible Ceramic Connector Type, MM 50 μm Fiber Type		
706300	95-050-51-X	ST Compatible Ceramic Connector Type, MM 50 μm Laser-Optimized Fiber Type		
706629	95-000-99	LC Ceramic (Senior) Connector Type, MM 62.5 µm Fiber Type		
706630	95-050-99	LC Ceramic (Senior) Connector Type, MM 50 μm Fiber Type		
706631	95-050-99-X	LC Ceramic Connector Type, MM 50 µm Laser-Optimized Fiber Type		
423206	95-200-41	SC Super PC Polish Connector Type, SM Fiber Type		
469537	95-200-42	SC Ultra PC Polish Connector Type, SM Fiber Type		
423207	95-200-51	ST Compatible Super PC Polish Connector Type, SM Fiber Type		
479974	95-200-52	ST Compatible Ultra PC Polish Connector Type, SM Fiber Type		
706622	95-200-99	LC Ultra PC Polish Connector Type, SM Fiber Type		
Accessories				
700097	95-400-03-BP	SC DPLX Clip (50 pk.)		
802940	TKT-UNICAM-PFC	Pretium UniCam Installation Tool Kit; ST Compatible, SC, and LC		
735761	TKT-UNICAM-CTS-SF	Basic Installation Tool Kit plus Continuity Test Set Functionality with VFL Included		
471484	95-000-04	CamSplice™ Mechanical, No-Adhesive Mechanical Splice (6 pk.)		
Adapters				
865098	ADP-ST00-MCATH-NLS	ST® Compatible Connector Adapter — LOMMF*; Metal Housing; Threaded Mounting; Jam Nut; Ceramic Sleeve; Aqua		
534916	ADP-ST00-MCBTH-NLS	ST Compatible Connector Adapter — MM 50 µm*; Metal Housing; Threaded Mounting; Jam Nut; Ceramic Sleeve; Black		
865099	ADP-ST00-MCKTH-NLS	ST Compatible Connector Adapter — MM 62.5 μm*; Metal Housing; Threaded Mounting; Jam Nut; Ceramic Sleeve; Beige		
791717	ADP-ST00-MCNTH-NLS	ST Compatible Connector Adapter — SM UPC*; Metal Housing; Threaded Mounting; Jam Nut; Ceramic Sleeve; Blue		
865100	ADP-ST00-MCXTH-NLS	ST Compatible Connector Adapter — SM, MM*; Metal Housing; Threaded Mounting; Jam Nut; Ceramic Sleeve		
865101	ADP-ST00-MMATH-NLS	ST Compatible Connector Adapter — LOMMF*; Metal Housing; Threaded Mounting; Jam Nut; Metal Sleeve; Aqua		
865102	ADP-ST00-MMBTH-NLS	ST Compatible Connector Adapter — MM 50 µm*; Metal Housing; Threaded Mounting; Jam Nut; Metal Sleeve; Black		
843868	ADP-ST00-MMKTH-NLS	ST Compatible Connector Adapter — MM 62.5 µm*; Metal Housing; Threaded Mounting; Jam Nut; Metal Sleeve; Beige		
865103	ADP-ST00-MMNTH-NLS	ST Compatible Connector Adapter — SM UPC*; Metal Housing; Threaded Mounting; Jam Nut; Metal Sleeve; Blue		
534767	ADP-ST00-MMXTH-NLS	ST Compatible Connector Adapter — SM, MM*; Metal Housing; Threaded Mounting; Jam Nut; Metal Sleeve;		
865104	ADP-DSC0-CCAFL-CLS	SC Duplex Adapter — LOMMF*; Composite Housing; Full Flange Mounting; Metal Clip; Ceramic Sleeve; Aqua		
865105	ADP-DSC0-CCBFL-CLS	SC Duplex Adapter — MM 50 µm*; Composite Housing; Full Flange Mounting; Metal Clip; Ceramic Sleeve; Black		
865106	ADP-DSC0-CCGFL-CLS	SC Duplex Adapter — SM APC*; Composite Housing; Full Flange Mounting; Metal Clip; Ceramic Sleeve; Green		
598874	ADP-DSC0-CCKFL-CLS	SC Duplex Adapter — MM 62.5 µm*; Composite Housing; Full Flange Mounting; Metal Clip; Ceramic Sleeve; Beige		
479757	ADP-DSC0-CCNFL-CLS	SC Duplex Adapter — SM UPC*; Composite Housing; Full Flange Mounting; Metal Clip; Ceramic Sleeve; Blue		
865113	ADP-DSC0-CMAFL-CLS	SC Duplex Adapter — LOMMF*; Composite Housing; Full Flange Mounting; Metal Clip; Metal Sleeve; Aqua		
865114	ADP-DSC0-CMBFL-CLS	SC Duplex Adapter — MM 50 μm*; Composite Housing; Full Flange Mounting; Metal Clip; Metal Sleeve; Black		
479756	ADP-DSC0-CMKFL-CLS	SC Duplex Adapter — MM 62.5 µm*; Composite Housing; Full Flange Mounting; Metal Clip; Metal Sleeve; Beige		
865115	ADP-DSC0-CMNFL-CLS	SC Duplex Adapter — SM UPC*; Composite Housing; Full Flange Mounting; Metal Clip; Metal Sleeve; Blue		
865116	ADP-DLCO-CCARC-CLS	LC Duplex Adapter — LOMMF*; Composite Housing; Reduced Flange Mounting; Integral Clip; Ceramic Sleeve; Aqua		
865117	ADP-DLCO-CCBRC-CLS	LC Duplex Adapter — MM 50 µm*; Composite Housing; Reduced Flange Mounting; Integral Clip; Ceramic Sleeve; Black		
865118	ADP-DLCO-CCGRC-CLS	LC Duplex Adapter — SM APC*; Composite Housing; Reduced Flange Mounting; Integral Clip; Ceramic Sleeve; Green		
865119	ADP-DLCO-CCKRC-CLS	LC Duplex Adapter — MM 62.5 µm*; Composite Housing; Reduced Flange Mounting; Integral Clip; Ceramic Sleeve; Beige		
865120	ADP-DLCO-CCNRC-CLS	LC Duplex Adapter — SM UPC*; Composite Housing; Reduced Flange Mounting; Integral Clip; Ceramic Sleeve; Blue		
865121	ADP-DLCO-CMARC-CLS	LC Duplex Adapter — LOMMF*; Composite Housing; Reduced Flange Mounting; Integral Clip; Metal Sleeve; Aqua		
865123	ADP-DLCO-CMBRC-CLS	LC Duplex Adapter — MM 50 µm*; Composite Housing; Reduced Flange Mounting; Integral Clip; Metal Sleeve; Black		
865124	ADP-DLCO-CMKRC-CLS	LC Duplex Adapter — MM 62.5 µm*; Composite Housing; Reduced Flange Mounting; Integral Clip; Metal Sleeve; Beige		
865125	ADP-DLC0-CMNRC-CLS	LC Duplex Adapter — SM UPC*; Composite Housing; Reduced Flange Mounting; Integral Clip; Metal Sleeve; Blue		



### **Custom Patch Cords**

Custom Patch cords are designed and factory-made to reduce installation costs and risks and are available in any length or configuration, using cable and connectors from industry leading manufacturers. For secure network deployments, patch cords are available using colored cabling, colored connector boots, or keyed connectors to visually separate different networks or classifications.





2 Fiber Yellow LC to LC

2 Fiber Aqua LC to LC

NOTE: Fibertron products are completely customized for each project to precisely match field requirements. As a result, Fibertron issues part numbers when the design is completed after an order is placed. Fibertron's experience working in the classified government arena is unsurpassed.

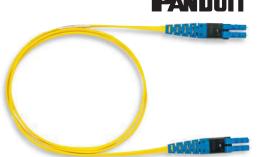
Contact the Secure(it) Team for product configuration, part numbers, and pricing.

### PanView $iQ^{\scriptscriptstyle\mathsf{TM}}$ Fiber Cross-Connect Patch Cords

PanView iQ™ Fiber Cross-Connect Patch Cords support cross-connect configurations to implement a protected patch field where each switch and server port is represented via a port on a PanView iQ™ Patch Panel.

### **Features and Benefits**

 PanView iQ™ Fiber Cross-Connect Patch Cords manage and map the patch field between two PanView iQ™ Patch Panels



CSC PAR	RT NO. MFR. PART NO.	DESCRIPTION
869267	PVF9L10-10M0.5\	Singlemode LC-LC, Duplex 9 Micron Patch Cord for Use with PanView iQ™ Patch Panel, LSZH Rated, Yellow, 0.5m
869268	PVFXL10-10M0.5\	Multimode LC-LC, Duplex 50 Micron OM3 Patch Cord for Use with PanView iQ™ Fiber Tray, LSZH Rated, Aqua, 0.5m

NOTE: For lengths 0.5m-10m (0.5m increments), change the length designation in the part number to the desired length.

### CommScope Lockable Fiber Optic Patch Cord Kit

The kit is field-installable and works with keyed and non-keyed duplex LC patch cords only. This wedge-and-release tool kit consists of 25 wedges and a removal tool (a 5-pack of removal tools is also offered). The wedge is inserted underneath the latch of a duplex LC connector. After the connector is installed into the adapter, the wedge allows movement. The connection cannot be detached without the removal tool, making it ideal for networks where extra security is needed.



COMMSCOPE®

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947683	760140293	Kit-LC Locks and Tool — 25 LC Patch Cord Locks and a Removal Tool
947684	760140301	Kit-LC Removal Tools — LC Lock Removal Tool Kit, Five Pack





### 10GX KeyConnect Modular Jacks, Category 6A

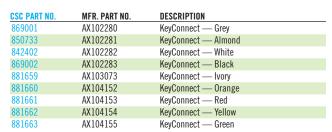
The 10GX Module is a punch down UTP connector, based on two patent-pending technologies that ensure unbeatable transmission performance and excellent long-term reliability. FleXPoint PCB technology incorporates a flexible PCB that reduces signal delay between the patch cord and connector. This reduces cross-talk noise, providing stable performance at high frequencies. The unique design of the module's MatriX IDC technology completely eliminates the issue of alien crosstalk at the point of cable termination. The 10GX Module is a critical component of the Belden IBDN System 10GX and all performance characteristics have been set to guarantee Augmented Category 6 performance, delivering transmission speeds of up to 625 MHz and a data-rate of up to 10 Gb/s.

The 10GX KeyConnect Modular Jack is compatible with KeyConnect and MediaFlex Faceplates. It can also be mixed and matched with a wide variety of adapters, boxes, and patch panels to suit practically any installation configuration for workstation outlet, consolidation point, and telecommunications room applications.









CSC PART NO.	MFR. PART NO.	DESCRIPTION
881664	AX104156	KeyConnect — Blue
881665	AX104157	KeyConnect — Purple
869003	AX102284	KeyConnect — Orange TIA 606 Color
869004	AX102285	KeyConnect — Red TIA 606 Color
869005	AX102286	KeyConnect — Yellow TIA 606 Color
834454	AX102287	KeyConnect — Green TIA 606 Color
850732	AX102288	KeyConnect — Blue TIA 606 Color
869006	AX102289	KeyConnect — Purple TIA 606 Color

### CAT6+ KeyConnect Modular Jacks, Category 6

The CAT6+ KeyConnect Modular Jack is a punch down, keystone-style UTP connector based on a patented Encapsulated Lead Frame technology, ensuring excellent long-term reliability as well as extremely stable transmission performance. The Beyond Category 6 performance exceeds all parameters specified in the Category 6 standard. All performance characteristics have been set to guarantee transmission performance up to 300 MHz and a data-rate of up to 4.8 Gb/s. KeyConnect is the module of choice for terminating UTP cables into the KeyConnect and MediaFlex Outlet Series. It can also be mixed and matched with a wide variety of adapters, boxes, and patch panels to suit practically any installation configuration for workstation outlet, consolidation point, and telecommunications room applications. It can also be used to terminate UTP cables into any keystone-style mounting hardware and can be easily snapped into simple sheet metal cut-outs



CSC PART NO.	MFR. PART NO.	DESCRIPTION
739654	AX101318	KeyConnect — Grey
739655	AX101319	KeyConnect — Almond
705362	AX101320	KeyConnect — White
739656	AX101321	KeyConnect — Black
862580	AX103076	KeyConnect — Ivory
866184	AX104189	KeyConnect — Orange
869955	AX104190	KeyConnect — Red
881666	AX104191	KeyConnect — Yellow
877616	AX104192	KeyConnect — Green

(panel mounting) for installation into consolidation point or multi-user custom-built devices.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
877592	AX104193	KeyConnect — Blue
877955	AX104194	KeyConnect — Purple
739657	AX101322	KeyConnect — Orange TIA 606 Color
739658	AX101323	KeyConnect — Red TIA 606 Color
739659	AX101324	KeyConnect — Yellow TIA 606 Color
739660	AX101325	KeyConnect — Green TIA 606 Color
739661	AX101326	KeyConnect — Blue TIA 606 Color
739662	AX101327	KeyConnect — Purple TIA 606 Color

Also available is the CAT6+ MDVO-Style Module, which is fully compatible with MediaFlex and Interface Faceplates. See CAT6+ 2-Port GigaFlex Inserts as part of the MediaFlex Faceplates on Page 97. See Page 12 for Belden Patch Panels.



































COMMSCSPE<sup>°</sup>





### GigaSPEED X10D F/UTP Modular Patch Cord

### **Features and Benefits**

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11801:2002 Class EA, and ANSI/TIA-568-C.2 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- Can support network line speeds up to at least 10 Gbps
- Certified component of an integrated GigaSPEED X10D F/UTP Solution
- Qualifies for the SYSTIMAX 20-Year Extended Warranty and Applications Assurance when included as part of a registered SYSTIMAX GigaSPEED X10D F/UTP channel

CPC CODE	PRODUCT Number	DESCRIPTION	JACK COLOR Options	CORD COLOR OPTIONS	UOM	CABLE/CORDAGE LENGTH OPTIONS
CPCGGJ2	G10FP	G10FP on 1295 Solid F/UTP Cordage, F/UTP Modular Patch Cord	0	1, 2, 3, 8, 9	F, M	3-300'/1-100m
CPCG4J2	G10FP117	G10FP Single-Ended Solid F/UTP Cordage, F/UTP Modular Patch Cord	0	1, 2, 3, 8, 9	F, M	3-300'/1-100m
CPCGQJ2	G10FP-MFP520	G10FP to MFP520B on 1295 Solid F/UTP Cordage Zone Extension Cord	0	1, 2, 3, 8, 9	F, M	3-300'/1-100m
CPCGGK2	G10FP-P	G10FP on 2295 Solid Plenum F/UTP Cordage, F/UTP Modular Patch Cord	0	3, 8, Z	F, M	3-300'/1-100m
CPCG4K2	G10FP117-P	G10FP Single-Ended Solid Plenum F/UTP Cordage, F/UTP Modular Patch Cord	0	3, 8, Z	F, M	3-300'/1-100m
CPCGQK2	G10FP-MFP520-P	G10FP to MFP520B on 2295 Solid Plenum F/UTP Cordage Zone Extension Cord	0	3, 8, Z	F, M	3-300'/1-100m
CPCGGL2	G10FP-L	G10FP on 3295 Solid LSZH F/UTP Cordage F/UTP Modular Patch Cord	0	8	F, M	3-300'/1-100m
CPCG4L2	G10FP117-L	G10FP Single-Ended Solid LSZH F/UTP Cordage F/UTP Modular Patch Cord	0	8	F, M	3-300'/1-100m
CPCGQL2	G10FP-MFP520-L	G10FP-MFP520B on 3295 Solid LSZH F/UTP Cordage Zone Extension Cord	0	8	F, M	3-300'/1-100m
CPCQQV2	MFP520-MFP520	MFP520B to MFP520B on 1291 F/UTP Cable Pre-Terminated Cord	0	8, C, Z	F, M	50-300'/15-100m

### GigaSPEED X10D F/UTP Information Outlet

### **Features and Benefits**

- Electrical performance guaranteed to meet or exceed the channel specifications of Amendment 1 to ISO/IEC 11 801 Class EA, and ANSI/TIA-568-C.2 Category 6A up to 500 MHz when used as part of a GigaSPEED X10D F/UTP Channel in registered SYSTIMAX installations
- Snaps into most CommScope faceplates, surface-mount boxes, consolidation point boxes, and SYSTIMAX M3200 panels
- Universal design and label support both T568A and T568B wiring
- IDC connector terminations on rear of base allow guick and easy installation of 22 to 24 AWG cables
- Black icons provided in strip of three: VOICE, DATA, and BLANK, and are also sold separately in packages of 25, available in several colors (product number M61K)

Clarity Shielded TracJack meets TIA Category 6 component specifications and is precisely tuned to the terminated plug values of Clarity patch cords

for optimum performance that is field-measurable in the channel.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
817454	760077032	MFP520 — F/UTP Information Outlet



- Optimal performance is achieved when using the GigaSPEED X10D G10FP patch cords
- Can support network line speeds up to at least 10 Gbps
- · Certified component of an integrated GigaSPEED X10D F/UTP Solution
- Qualifies for the SYSTIMAX 20-Year Extended Warranty and Applications Assurance when included as part of a registered SYSTIMAX product





CSC	PART NO.	MFR. PART NO.	DESCRIPTION
7122	229	OR-TJS600	Shielded Clarity <sup>6</sup> , Category 6 TracJack, 180° Exit, Universal A/B Wiring
NO1	E: See page	13 for TracJack Patch	Panel Kit; and page 47 for LANMark-6 FTP Category 6 Cable.

### Shielded Clarity® Modular Patch Cords

Shielded Clarity® TracJack® Series

A shielded version of the Paralign 2 plug termination makes these Clarity 6 shielded patch cords the high-performance choice for an STP or FTP 100 ohm cabling system.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
729131	OR-MCS603-08	Shielded Clarity, Category 6, Four-Pair 24 AWG Stranded FTP, Grey, PVC, 3'L
729132	OR-MCS605-08	Shielded Clarity, Category 6, Four-Pair 24 AWG Stranded FTP, Grey, PVC, 5'L
712230	OR-MCS607-08	Shielded Clarity, Category 6, Four-Pair 24 AWG Stranded FTP, Grey, PVC, 7'L
729134	OR-MCS609-08	Shielded Clarity, Category 6, Four-Pair 24 AWG Stranded FTP, Grey, PVC, 9'L
947440	OR-MCS6015-08	Shielded Clarity, Category 6, Four-Pair 24 AWG Stranded FTP, Grey, PVC, 15'L

NOTE: See page 13 for TracJack Patch Panel Kit; and page 47 for LANMark-6 FTP Category 6 Cable.









### QuickPort® Copper Shielded Connectors

### **Features**

- Shielding provides EMI/RFI protection, signal isolation, and excellent alien crosstalk (AXT) suppression
- · Industry-standard density is compatible with QuickPort footprint
- · Robust die-cast housing
- 270° wide-angle hinge provides easy access and termination
- No punchdown tool required; snaps closed when termination is complete

Compatible with F/UTP, U/FTP, and other common shielded cable types

CSC PART NO.	MFR. PART NO.	DESCRIPTION
822108	6S10G-S6A	QuickPort Category 6A Shielded Connector
802617	6S180-SH6	QuickPort Category 6 Shielded Connector

See page 13 for Leviton Shielded Patch Panels.



MFR. PART NO.

5S180-SH5





QuickPort Category 5e Shielded Connector

### QuickPort® Copper UTP Connectors

Leviton offers a wide variety of connectors for UTP copper cable applications. All connectors feature standard QuickPort compatibility and patented dual-layer T568A/B wiring diagrams for flexibility and fast, accurate termination.

- Category 6A connectors provide industry-leading performance for high bandwidth applications
- Category 6A connectors feature patented Cone of Silence® and metalized body to suppress AXT
- Patented Retention Force Technology protects against damage caused by 4- or 6-pin plugs
- Easy-to-read connector wiring scheme labels
- · Pair Separation Towers make termination easy by separating each wire pair with a small, pointed tower



**CSC PART NO** 

791681





6A10G-RW6

CSC PART NO.	MFR. PART NO.	DESCRIPTION
849172	6A10G-RW6*	eXtreme® Category 6A QuickPort Component-Rated UTP Connector, White
767450	6110G-RW6*	eXtreme Category 6A QuickPort Channel-Rated UTP Connector, White
593548	61110-RW6*	eXtreme 6+ Category 6 QuickPort Component-Rated UTP Connector, White
712808	61110-BW6*	eXtreme 6+ Category 6 QuickPort Component-Rated UTP Connector QuickPack® (25/bag), White
846814	61110-24W†	eXtreme 6+ Category 6 QuickPort Component-Rated UTP Connector GreenPack® (24/pack), White
702664	5G110-RW5*	GigaMax® 5e+ Category 5e QuickPort Component-Rated UTP Connector, White
711600	5G110-BW5*	GigaMax 5e+ Category 6 QuickPort Component-Rated UTP Connector QuickPack (25/bag), White
850716	5G110-24W†	GigaMax 5e+ Category 6 QuickPort Component-Rated UTP Connector GreenPack (24/pack). White

<sup>\* =</sup> Connector listed in white. For other colors, replace "W" in part number with light almond (T), ivory (I), yellow (Y), orange (O), crimson (C), dark red (R), purple (P), blue (L), green (V), grey (G), black (E), or brown (B).

### Modular Patch Cords — UTP and Shielded

Leviton Patch Cords are available in standard and SlimLine configurations, in Category 6A to 5e ratings. With flexible stranded wire for long-term channel integrity, Leviton Patch Cords provide the consistent transmission you need.

- Component-rated for optimum channel performance
- Independently tested and verified by Intertek (ETL)
- Category 6A SlimLine Patch Cord provides exceptional alien crosstalk (AXT) suppression
- SlimLine cords feature a narrow profile plug to reduce congestion in high-density applications
- · All patch cords are RoHS Compliant

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
842580	6AS10-03L†	Category 6A Component-Rated SlimLine Patch Cord for UTP and Shielded, Blue, 3' Length	_
806801	6D460-03L†	Category 6 Component-Rated SlimLine UTP Patch Cord, Blue, 3' Length	
802479	5D460-03L†	Category 5e Component-Rated SlimLine Patch Cord, Blue, 3' Length	
822312	6S460-03S*	Category 6 Component-Rated Standard Shielded Patch Cord with Matching Boot, Grey, 3' Length	
822318	5\$460-03\$*	Category 5e Component-Rated Standard Shielded Patch Cord with Matching Boot, Grey, 3' Length	

<sup>† =</sup> SlimLine Patch Cords listed in blue 3' length. For other colors, replace "L" in part number with white (W), yellow (Y), orange (O) (Category 6A only), red (R), green (G), grey (S), or black (E). For other lengths, replace "03" with "05", "07", "10", "15", or "20" feet.
\* = Standard Shielded Patch Cords are available only in Grey. For other lengths, replace "03" with "05", "07", "10", "15", or "20" feet.



<sup>† =</sup> GreenPack connector packs listed in white. For other colors, replace "W" in part number with ivory (I), orange (O), blue (L), or black (E). See pages 13-15 for Leviton Patch Panels.





### PanView iQ<sup>™</sup> Copper Interconnect Patch Cords

PanView iQ<sup>™</sup> Copper Interconnect Patch Cords support interconnect configurations, ensuring connectivity between a network switch and monitored PanView iQ™ Patch Panel, delivering enhanced port security.

### Features and Benefits

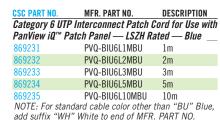
 Support connectivity between shielded non-PanView iQ<sup>™</sup> enabled ports (e.g., switches with shielded jacks, servers with shielded jacks, etc) and PanView iQ™ Panel Ports

CSC PART NO.	MFR. PART NO.	DESCRII	PTION
	' Interconnect Patch I™ Patch Panel — C		
869220	PVQ-BIU6C3BU	3'	
869221	PVQ-BIU6C5BU	5'	
869222	PVQ-BIU6C7BU	7'	
869223	PVQ-BIU6C10BU	10'	
869224	PVQ-BIU6C14BU	14'	
869225	PVQ-BIU6C20BU	20'	
NOTE: For stand	dard cable color other	than "BU	" Blue

add suffix "GR" Green to end of MFR. PART NO.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
	Interconnect Patch	
with PanView iQ'	™ Patch Panel — ປ	CM Rated — Blue
869226	PVQ-BIU6C1MBU	1m
869227	PVQ-BIU6C2MBU	2m
869228	PVQ-BIU6C3MBU	3m
869229	PVQ-BIU6C5MBU	5m
869230	PVQ-BIU6C10MBU	10m
NOTE: For standa	ard cable color othe	r than "BU" Blue.

add suffix "GR" Green to end of MFR. PART NO.



CSC PART NO. MFR. PART NO. DESCRIPTION  10Gig™ UTP Enhanced Interconnect Patch Cord  for Use with PanView iQ™ Patch Panel —  CM Rated — Blue				
947584	PVQ-EU6AC1BU	1'		
869236	PVQ-EU6AC2BU	2'		
869237	PVQ-EU6AC3BU	3'		
869238	PVQ-EU6AC5BU	5'		
869239 NOTE: For star	PVQ-EU6AC10BU adard cable color other	10' than "BU" Blue,		

add suffix "WH" White to end of MFR. PART NO.





CSC PART NO. MFR. PART NO. DESCRIPTION  10Gig™ STP Enhanced Interconnect Patch Cord for Use with PanView iQ™ Patch Panel —  Dual Rated — Blue				
947583	PVQ-ES6X1BU	1'		
869240	PVQ-ES6X2BU	2'		
869241	PVQ-ES6X3BU	3'		
869242	PVQ-ES6X5BU	5'		
869243	PVQ-ES6X10BU	10'		

NOTE: For standard cable color other than "BU" Blue. add suffix "WH" White to end of MFR. PART NO. DESCRIPTION CSC PART NO. MFR. PART NO.

<del></del>		<b>D D D D D D D D D D</b>		
10Gig™ STP Enhanced Interconnect Patch Cord for Use with PanView iQ™ Patch Panel — Dual Rated — Blue				
869244	PVQ-ES6X1MBU	1m		
869245	PVQ-ES6X2MBU	2m		
869246	PVQ-ES6X3MBU	3m		
869247	PVQ-ES6X5MBU	5m		
869248	PVQ-ES6X10MBU	10m		
	andard cable color other /H" White to end of MFR			

### PanView iQ<sup>™</sup> Copper Cross-Connect Patch Cords — Basic

PanView iQ™ Copper Cross-Connect Patch Cords support cross-connect configurations to implement a protected patch field where each switch and server port is represented via a port on a PanView iQ™ Patch Panel.

### **Features and Benefits**

 PanView iQ<sup>™</sup> Copper Cross-Connect Patch Cords manage and map the patch field between two PanView iQ™ Patch Panels

CSC PART NO.	MFR. PART NO.	DESCRIPTION			
	Category 6 UTP Patch Cord for Use				
with PanView iQ"	™ Patch Panel — Bl	ue			
795477	PVUTPSPC3BBUY	3'			
792349	PVUTPSPC5BBUY	5'			
792350	PVUTPSPC7BBUY	7'			
869249	PVUTPSPC10BBUY	10'			
869250	PVUTPSPC14BBUY	14'			
869251	PVUTPSPC20BBUY	20'			
NOTE: Available	in "BU" Blue only.				

CSC PART NO.	MFR. PART NO.	DESCRIPTION
	Patch Cord for Use ™ Patch Panel — Blud	٥
869252	PVUTPSPC1MBBUY	1m
843405	PVUTPSPC2MBBUY	2m
869253	PVUTPSPC3MBBUY	3m
869254	PVUTPSPC5MBBUY	5m
869255	PVUTPSPC7MBBUY	7m
869256	PVUTPSPC10MBBUY	10m
		// m / / / m /

NOTE: For standard cable color other than "BU" Blue, add suffix "GR" Green to end of MFR. PART NO.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
	Modular 10Gig™.	
for Use with Panl	liew iQ™ Patch Pa	nnel — Blue
869257	PVSTP6X1MBBU	1m
869258	PVSTP6X2MBBU	2m
869259	PVSTP6X3MBBU	3m
869260	PVSTP6X5MBBU	5m
add suffix "BL" B	PVSTP6X10MBBU rd cable color othe lack, "RD" Red, " d of MFR. PART N	

CSC PART NO.		
	TP Modular 10Gig™ F nnView iQ™ Patch Pai	
869262	PVUTP6X1MBBU	1m
869263	PVUTP6X2MBBU	2m
869264	PVUTP6X3MBBU	3m
869265	PVUTP6X5MBBU	5m
869266 NOTE: For stan	PVUTP6X10MBBU dard cable color other	10m rthan "BU" Blue,





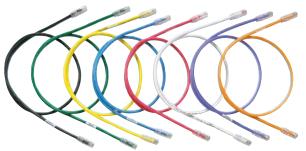




The Panduit Keyed Copper Cabling System facilitates secure, modular end-to-end keyed connectivity for all Category 6A, 6, 5e cabling and interconnect elements in the enterprise.



### TX6A<sup>™</sup> 10Gig<sup>™</sup> Shielded Patch Cord — Copper



### **Features and Benefits**

- Each patch cord is 100% performance tested
- Modular plugs meet all applicable ANSI/TIA-968-A requirements and exceed IEC 60603-7 specifications
- Patented tangle free latch prevents snags and provides easy release, saving time on frequent moves, adds, and changes
- Exceeds requirements of ANSI/TIA-568-C.2 Category 6A, IEEE 802.3an-2006, and ISO 11801 Class E<sub>A</sub> channel standards; exceeds requirements of ANSI/TIA-568-C.2 Category 6A and IEC 61156-5 Category 6A component standards
- Meets requirements of IEEE 802.af and IEEE 802.3at for PoE applications

JOG PAKT NU.	WIFK. PAKI NU.	DESCRIPTION
947856	STP6X3MIG	Category 6A, 10Gig <sup>™</sup> Shielded Patch Cord — 3m, International Grey

NOTE: For standard patch cord lengths 1-10m (increments of one meter) and 1.5, 2.5, 15, 20, 25, 30, 35, and 40 meters, change the length designation in the model number to desired length. For standard cable colors other than IG (International Grey),

substitute IG with BL (Black), BU (Blue), GR (Green), RD (Red), YL (Yellow), OR (Orange), or VL (Violet) at the end of the model number. For example,

the model number for a blue, 15m patch cord is STP6X15MBU. See page 55 for Category 6A 10Gig™ Shielded Copper Cable, and page 15 for Shielded Modular Patch Panels.

### Keyed Jacks/Patch Cords — Copper

### **Features**

- · Color specific keys with positive and negative keying features
- 100% performance tested
- Available in variety of categories, colors, and lengths
- · Design provides strictest keying integrity

### Benefits

- Mechanically and visually distinguish connections to prevent unintentional insertion into unlike keyed and non-keyed ports
- Confidence that each connectivity component delivers specified performance
- Meets individual requirements for greater system flexibility
- Helps to comply with physical layer security practices and addresses identification and authorization aspects of the DISA and STIG

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
948520	CJK5E88TGBL	Mini-Com® TX5e™ Keyed UTP Jack Module — Black	
943856	CJSK5E88TGBL	Mini-Com® TX5e™ Keyed Shielded Jack Module — Black	
858786	CJK688TGBL	Mini-Com® TX6™ PLUS UTP Jack Module — Black	
860410	CJSK688TGBL	Mini-Com® TX6™ PLUS Shielded Jack Module — Black	
948521	CJK6X88TGBL	Mini-Com® TX6™ 10Gig™ UTP Jack Module — Black	
947852	CJSK6X88TGBL	Mini-Com® TX6™ 10Gig™ Shielded Jack Module — Black	

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947859	UTPKCH3BL	TX5e <sup>™</sup> Keyed UTP Patch Cord — 3', Black
947857	STPKCH3BL	TX5e™ Keyed Shielded Patch Cord — 3', Black
947860	UTPKSP3BL	TX6™ PLUS UTP Patch Cord — 3', Black
947858	UTPK6A3BL	TX6A™ 10Gig™ UTP Patch Cord — 3', Black
947586	STPK6A3BL	TX6A™ 10Gig™ Shielded Patch Cord — 3', Black

UTPK6A3BL

NOTE: For color configurations other than BL (Black), replace with BU (Blue), RD (Red), GR (Green), YL (Yellow) or OR (Orange). For patch cord lengths other than 3, change length designation in the model number to desired length. Category 6 and 5e available in standard lengths 1–20 (increments of one foot), and 25, 30, 35, and 40 feet. Category 6A available in standard lengths 3–20' (increments of one foot), and 25, 30, 35, and 40 feet.

### TX6A™ 10Gig™ Shielded Jack Module — Copper

### **Features and Benefits**

- Each jack module is 100% tested to ensure NEXT and Return Loss performance and is individually serialized for traceability
- Utilizes patent-pending enhanced Giga-TX™ Technology for jack terminations, optimizing performance by maintaining cable pair geometry and eliminating conductor untwist
- Terminates 4-pair, 22-26 AWG, 100 ohm, solid or stranded twisted pair cable, and can be re-terminated a minimum of 20 times
- Exceeds requirements of ANSI/TIA-568-C.2 Category 6A, IEEE 802.3an-2006, and ISO 11801 Class E<sub>A</sub> channel standards; exceeds requirements of ANSI/TIA-568-C.2 Category 6A and IEC 61156-5 Category 6A component standards
- Meets requirements of IEEE 802.af and IEEE 802.3at for PoE applications



CJK688TGBL

|--|

CJS6X88TGY Category 6A Shielded Jack Module

Shielded non-keyed jack modules only available in black.

See page 55 for Category 6A 10Gig™ Shielded Copper Cable, and page 15 for Shielded Modular Patch Panels.





## **Industry-Leading Manufacturers...**

**CORNING** 









## The solutions featured on pages 80–93 include:

- Approved/Deployed Solutions
- Multiple Vendor Solutions
- Reduce Design Complexity
- Custom Enclosures
- Environmental and NEMA Rated

# Pathway & Enclosures

PDS Raceway/Boxes80–90
Zone Boxes/Enclosures91–92
Surface Mount Raceway 93









### PDS Secure Raceway System

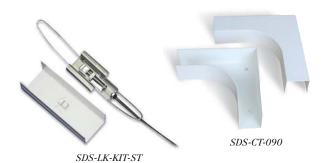
Holocom® Secure Raceway System is an an interlocking, US manufactured suite of products that provide physical security for SIPRNet and other classified networks.

### Features

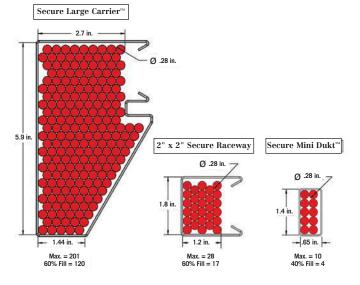
- Complies with regulations, NSTISSI 7003, and applicable Army, Air Force, and Navy requirements
- Unlike EMT/pipe, Holocom raceway can be opened for inspection allowing access to cables and components; no exposed mounting hardware
- Modular, interlocking parts allow moves, adds, and changes (MACs); disassembles with reusable components
- Uses cable lay-in design and simplified mounting techniques; clean design; visually attractive
- Three cable carrier sizes: Secure Large Carrier™, 2" x 2" Secure Raceway, Secure Mini Dukt™

### **Benefits**

- Satisfies customer needs for classified network to be compliant and approved
- Allows government representatives true post-installation inspection of cables and components
- Can add/drop users without major disruption to network; reduces total cost of PDS ownership and carbon footprint
- Significantly reduces labor costs due to faster, more efficient installation
- Cable carrier size can be matched to cable count requirements; economic use of materials







HOLOCOM® Cable Carrier Options

CAT 6 STP Cable Fill

CSC PART NO.	MFR. PART NO.	DESCRIPTION
707815	SDS-WM-RCW-ST	2" x 2" Two-Piece Secure Raceway; "Locks Down" with Holocom Locking Components; 16-Gauge, Galvanized, Powder-Coated; 5/10' Lengths
707818	SDS-LK-KIT-ST	Steel Locking Kit Locks 2" x 2" Secure Raceway; Can Be Unlocked for Inspection and Moves/Adds/Changes
707820	SDS-CT-EE6-ST	End-to-End Connector Securely Joins to Sections of 2" x 2" Secure Raceway TopCap
856649	SDS-CT-INF-ST	Interface Sleeve Transitions Secure Raceway to Holocom Secure Enclosure
707822	SDS-CT-090	90° Connector Allows Right-Angle Turn on Flat Surface; 3" Radius for Smooth Cable Turn; Manufactured Mounting Points Reduce Labor
703337	SDS-CT-90i	90° Internal Connector Allows Secure Raceway to Perform a Right-Angle Turn on an Inside Corner
947506	SDS-CT-0FF-04	Offset Connector 4" Simplifies and Expedites Secure Raceway Installation Around 4" Deep Obstacles; Available in 8"
947508	SDS-WM-REC	Run End Connector Ends a Section of Secure Raceway within Room/Hallway
856657	SDS-TW-004-12	Through-Wall Kit Provides 2" Through-Wall Pathway between Sections of Secure Raceway; Additional Kit Sizes/Configurations Available





### PDS Secure Mini Dukt™

Secure Mini Dukt<sup>™</sup> is a reduced-profile cable carrier that provides a smaller footprint on the wall without compromising user functionality.

### Features

- · Smaller footprint on the wall; hardware housed inside; no exposed installation hardware; galvanized/powder-coated
- Integrates with Secure Raceway/other Holocom PDS products; uses Holocom installer-friendly features
- Reduced number of parts required for installation; single-person installation
- Economic use of materials

### Benefits

- · Clean lines, enhanced aesthetics; blends with office environment
- · Enhanced labor efficiency and lower labor cost
- Decreased material, labor, and shipping costs
- · Lowers carbon footprint









SMD-CT-3WY





CSC PART NO.	MFR. PART NO.	DESCRIPTION
856735	SMD-WM-T50	1.5" x 0.75" Tube for Use within Rooms; Integrates with Secure Raceway and UDB3; Galvanized, Powder Coated, 5' Lengths, 50' Kit
856739	SMD-WM-MB	Mounting Bracket Holds Two Pieces of Tube Together and Provides Installation Point; Galvanized, Powder Coated
856741	SMD-CT-3WY	Reducing 3-Way Connector Joins 2" x 2" Secure Raceway and Tube, Usually to a User Drop Box (UDB3); 16-Gauge Base/Cover
856729	SMD-CT-INF	Interface Sleeve Transitions Tube to a Secure Enclosure; Galvanized, Powder Coated
856734	SMD-CT-INF-90	90° Interface Sleeve Provides a 90° Transition between Tube and a Secure Enclosure or Through-Wall Kit
856752	SMD-TW-007-12	Provides a 1" Through-Wall Pathway between SMD Tube and Holocom Raceway, Connector, or Enclosure

### PDS Secure Large Carrier™

The NEW Secure Large Carrier™ conforms with Holocom's highly regarded aesthetics and offers a raceway alternative for high-density cable count requirements.

### Features

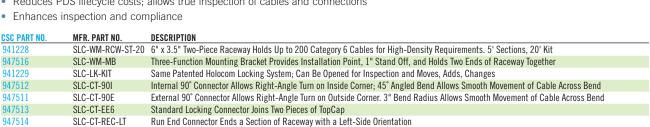
- · Maximum 200 Category 6 shielded cable capacity; more than 7x greater than 2" x 2" Secure Raceway
- Used as backbone carrier for home run cable design systems
- Integrates with 2" x 2" Secure Raceway and uses Holocom patented locking technology
- Interlocking parts allow moves, adds, and changes (MACs) at minimal cost
- · Galvanized; powder coated for tamper-evident finish

### **Benefits**

947515

- Accommodates high-density cable count requirements
- · Efficient use of materials; eliminates need for multiple smaller cable carriers
- Familiar installation techniques, plus cable drop-in ability reduce labor installation costs
- Reduces PDS lifecycle costs; allows true inspection of cables and connections

SLC-CT-REC-RT



Run End Connector Ends a Section of Raceway with a Right-Side Orientation



SLC-CT-REC-LT

SLC-WM-MB







### User Drop Box Enclosures

User Drop Box Enclosures provide physical security for single or multiple end-user connections. Available in a variety of styles designed to fit project requirements.

### **Features**

- Internal hinges, integrated hasp, and welded construction
- Accommodates single/multiple copper and fiber connections
- · Installer-friendly design features
- Integrated or retrofit back plate insert for standard faceplates
- Internal manufactured mounting points; powder coated

- Approved high-security enclosure; restricts access to cable termination point
- Adaptable to network design requirements
- Reduces installation time and labor costs
- Allows installers to adjust to requirements
- · Clean lines; enhanced aesthetics





SEC-WM-UDB3-H1

CSC PART NO.	MFR. PART NO.	DESCRIPTION
856374	SEC-WM-UDB-H1	User Drop Box; Built-In Tension Relief Cable Wrap, Top Opening; 16-Gauge, Galvanized, 7.5" x 6" x 4"
881621	SEC-WM-UDB2-H1	User Drop Box 2; Manufactured without Top Opening; Otherwise Identical to UDB
941219	SEC-WM-UDB3-H1	User Drop Box 3; Top Opening Designed for Use with Holocom Secure Mini Dukt™; Otherwise Identical to UDB
703082	SEC-WM-764-H1	User Drop Box with Side Opening Door/No Top Opening; Allows Installer Discretion on Hole Placement/Mounting Orientation
707812	SEC-WM-885-H1	Larger User Drop Box Supports Multiple Network Connections and Uses RTF2; 16-Gauge, Galvanized, 8" x 8" x 5"
Accessories		
856704	SDS-IN-RTF	Retrofit Insert Fits Inside SEC-WM-764-H1; Tension Relief Cable Wrap, 6-32 U-Style Clip for Single-Gang Faceplate
947507	SDS-IN-RTF-02	Retrofit Insert 2 Fits Inside SEC-WM-885-H1: Supports 2x Corning Closet Connector Housing Panels (CCH-CP)

### **Pull Box Enclosures**

Holocom high-security pull boxes are available in a wide range of sizes. All lock securely with Holocom's patented door closure and S&G padlock.

### **Features**

- · Available in a variety of sizes in 12and 16-gauge electro-galvanized steel
- Single door with 3-point locking system
- Welded internal hinges
- Neutral color powder-coat finish

- · Varying sizes accommodate different project requirements
- Tamper-resistant design; maximum security
- · Clean lines, high-security protection
- Enhanced aesthetics and tamper-evident, powder coating





SEC-WM-PB1-H1

CSC PART NO.	MFR. PART NO.	DESCRIPTION
707813	SEC-WM-PB1-H1	12"H x 18"W x 4"D, 16-Gauge, Galvanized and Powder Coated, 15 lbs.
856380	SEC-WM-118-H5	12"H x 12"W x 8"D, 12-Gauge, Galvanized and Powder Coated, 22 lbs.
858626	SEC-WM-PB2-H1	16"H x 24"W x 6"D, 16-Gauge, Galvanized and Powder Coated, 26 lbs.
947510	SEC-WM-PB2-H5	16"H x 24"W x 6"D, 12-Gauge, Galvanized and Powder Coated, 42 lbs.
823159	SEC-WM-PB3-H1	24"H x 24"W x 6"D, 16-Gauge, Galvanized and Powder Coated, 35 lbs.
948522	SEC-WM-PB5-H1	12"H x 18"W x 6"D, 16-Gauge, Galvanized and Powder Coated, 17 lbs.
752450	SEC-WM-PB9-H1	36"H x 30"W x 9"D, 16-Gauge, Galvanized, Powder Coated, 69 lbs.; May Be Used for Passive Equipment with Added PP Bracket





### Special Application Enclosures

Holocom produces Special Application Enclosures in response to specific requirements. Enclosures produced in small and large quantities as required.

- In-house product design and production engineers
- Enclosures that precisely fit requirements
- Expertise and extensive experience working in classified network environments
- Veteran-owned small business
- 100% made in U.S.A.; local manufacturing

### **Benefits**

- · Ability to respond quickly to new RFPs/RFQs — no bureaucratic delays
- Avoids wasted time attempting to create a retrofit solution
- Confidence regarding product approval and installation compliance

SEC-WM-EXT1-H1

- Satisfies integrator sub-contractor compliance requirements
- Supports economic stimulus goals; fast product turnaround

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947509	SEC-WM-EXT1-H1	Provides Interface between Mobile
		Communications Platform and
		Building Voice/Data Network.
		Four Cable Pass-Through Slots.
		16-Gauge Steel, 20" x 20" x 10"
856708	SAP-IM-SE1-H1	IPS Junction Box Joins Holocom PDS to
		Hamilton Safe® COMSEC Information
		Processing System Container.
		16-Gauge Steel, 10" x 8" x 8"

### **Equipment Enclosures**

Lockable 04U Enclosures mount on the wall and serve as mini-telecommunications rooms. All are 16-gauge galvanized and powder coated. 42" x 29" x 9.5", 94 lbs.

SEC-WM-04U-H1

### Features

- Low profile, 4U depth
- Allows network compartmentalization
- Patented 3-point locking system; welded internal hinges; heavy-duty hasp for S&G lock
- Protected venting louvers/passive cooling design; active cooling option
- Single removable door

### **Benefits**

- Efficient use of communications closet space
- Network security; complies with regulations and DoD requirements
- Tamper-resistant design maximum security for distribution/routing of classified communications
- Energy efficient
- Installer-friendly design

CSC PART NO.	MFR. PART NO.	DESCRIPTION
793857	SEC-WM-04U-H1	Contains Two Patch Panel Brackets,
		One Equipment Bracket for 4U of
		Active Electronics.
		Excellent Substitute for 19" Racks.
941333	SEC-WM-04U-02	48-User Enclosure
941334	SEC-WM-04U-03	Access Control Enclosure
941335	SEC-WM-04U-04	Intrusion Detection System (IDS) Enclosure
941336	SEC-WM-04U-05	IP Camera Enclosure

### TopRunner®

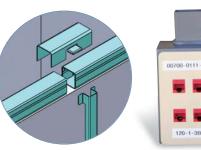
TopRunner® is an aesthetic, economical raceway solution for adding classified network cabling in existing secure-space cubicle environments.

### **Features**

- TopRunner® cable pathway runs along top of cubicle furniture, spaced away from other cable pathways
- Allows installation without disassembling existing network cabling
- · Aluminum construction and tight-fitting component overlap
- Cable lay-in installation and simple component connections
- · Color-matched; fits common-width cubicles

### **Benefits**

- Complies with inspection requirements for red/black separation
- · Minimal disruption to the work environment during installation and data communications service
- Shields cables and connections against daily use and frequent user changes
- Reusable; easy moves, adds, and changes save time and money
- · Blends with office environment



TR-UDB-01

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947524	TR-RW-AL	2" x 2" Raceway, Aluminum, Runs Along Top of Cubicle, Fits 2–2½" Panels, Color-Matched to Furniture
947525	TR-TC-AL	2" x 2" TopCap Provides Firm Fit on Top of Raceway
947517	TR-CT-090	90° Connector Allows Right-Angle Turn on Flat Surface; Three Manufactured Mounting Points; Integrated Overlap with TopCap
947519	TR-CT-90I	90° Internal Connector Allows Right-Angle Turn on an Inside Corner
947518	TR-CT-90E	90° External Connector Allows Right-Angle Turn on an Outside Corner
947523	TR-RI-090	Connects Raceway with Vertical Riser Pole
947520	TR-CT-REC	Run End Connector Ends a Section of Raceway/TopCap
947526	TR-UDB-01	User Drop Box; Single-Gang Surface Mount Box; Integrated Interface Sleeve Connects to Vertical Wire Manager
947527	TR-UDB-MB	Mounting Bracket Mounts to Furniture Panel/Desk; Holds User Drop Box
947528	TR-VWM-48	Vertical Wire Manager Extends from Raceway to User Drop Box
947521	TR-CT-VWM-01	Slides over TopCap and Conceals Top of Vertical Wire Manager





### Wiremold Secure Solutions — Unparalleled Scalability and Security

With the growing utilization of net-enabled applications and stored data, the THREATS to our networks are growing both in number and intensity. An important consideration for any secure raceway or PDS system being installed is the inherent VULNERABILITIES that the system will introduce into the network.

With an increasing threat level, secure networks cannot afford to be installed inside of a raceway system that is plagued with design and installation vulnerabilities. Previous commercial solutions provided an aesthetic and re-enterable raceway solution, but the distributed locking mechanism created a major vulnerability to the security of the network especially against serruptitious attack where system compromise would be undetectable. Wiremold Data-Fense Secure Raceway Systems, Channel, and Enclosures are designed to reduce or eliminate these same system vulnerabilities. By incorporating several design enhancements, Data-Fense Raceway greatly enhances the effectiveness of the Periodic Visual Inspection to detect tampering or unauthorized access of the PDS system. After all, with the growing importance of our networks — and the threats against them — a secure raceway system should be exactly that — SECURE.













### **Secure Channel**

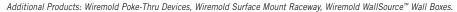
- A solid welded, 2x2 secure channel system
- Listed as stand-alone solution or for drop-offs from secure raceway
- · Innovative stand-off and wall bracket
- Epoxied 90° and "T" fittings

### Secure Raceway

- A modular and scalable secure raceway system
- Re-enterable for moves, adds, and changes
- Traditional base and cover design simplifies design and installation WITHOUT sacrificing PDS security

### **Secure Enclosures**

- A broad portfolio of secure enclosures to meet PDS requirements
- · Interfaces with secure channel through drop-out fitting
- Leverage GSA-approved Combo Lock for PDS security

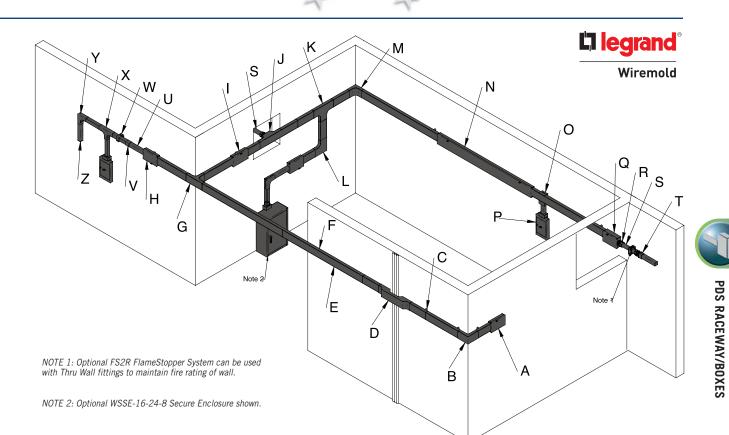


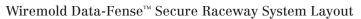




"The old way of doing things with EMT was costly, time consuming and made adds, moves, and changes very difficult. The Secure(it) Program showed us the future of PDS."







$\mathbf{A}-WSSR ext{-}ETERM$	Raceway End Termination Unit	N-WSSR-MSB	System Access Box
${f B}-{\sf WSSR-1018F0}$	Outside 90° Elbow	$0-WSSR ext{-}DO$	Vertical Raceway Dropout
C - SPACER	1.5" Long x 1" Dia. Spacer	$\mathbf{P}-WSSR ext{-DT}$	Work Station Access Box
$\mathbf{D}-WSSR-VO$	Vertical Offset Fitting	$\mathbf{Q}-WSSR-TWH$	Horizontal Thru Wall Unit
$\mathbf{E}-WSSR ext{-RWC}$	60" Long Secure Raceway Cover	$\mathbf{R}-WSSR-2CC$	2" EMT Conduit Compression Connector
$\mathbf{F}-WSSR ext{-RWB}$	120" Secure Raceway Base	S - WSSR-2" EMT	2" EMT Conduit
$\mathbf{G}-WSSR\text{-}1015FOH$	Horizontal Tee	T-WSSR-2X2CA	2" Conduit to 2" x 2" Raceway Adapter
$\mathbf{H}-WSSR ext{-RED}$	4.75" x 1.75" to 2" x 2" Raceway Reducer	$\mathbf{U}-WSSR\text{-}2X2RW$	120" 2 x 2 Secure Raceway
I-WSSR-SB	Cable Access Slack Box	V - WSSR-2X2C	2" x 2" Raceway Coupling
$\mathbf{J}-WSSR-TWV$	Vertical Thru Wall Unit	W-WSSR-2X2MB	2" x 2" Raceway Mounting Bracket
$\mathbf{K}-WSSR-1015FOV$	Vertical Tee	X - WSSR-2X2TEE	2" x 2" Raceway Tee
L-WSSR-1011FO	Horizontal 90° Elbow	<b>Y</b> – WSSR-2x2E90	2" x 2" Raceway 90° Elbow
$\mathbf{M}-WSSR-1017F0$	Inside 90° Elbow	$\mathbf{Z}-WSSR-2X2EC$	2" x 2" Raceway End Cap





### Wiremold® Data-Fense™ Secure Raceway System

The Wiremold Data-Fense Secure Raceway System is designed specifically to provide the protection and assurance of a hardened carrier Protective Distribution System (PDS) (as defined in NSTISSI 7003) while also providing unparalleled modularity and scalability for future moves, adds, and changes. Since PDS systems are typically employed to protect unencrypted National Security Information, the security and protection of the network has to be paramount — especially in light of the increasing threat base. The Data-Fense Secure Raceway has been designed to provide the modularity and scalability desired WITHOUT compromising security or introducing new system vulnerabilities that could be exploited to compromise the network integrity or availability.

The SecureLock interlocking base and cover design provides a structural connection between the Data-Fense base and cover that prevents the cover from being pulled off or pushed into the raceway except at secure end points or access boxes. Once all of the raceway base is installed, the covers are slid into place and secured to prevent unauthorized access or inadvertent movement.









The covers are secured in place by three disparate locking mechanisms that are integrated into each end point or access box:

- The Raceway Clamp provides a compression lock between the cover and base
- The Security Pinhole enables the end cover section to be attached to the Raceway Clamp using a bolt or a DoD Security Seal
- The Cover Stop prevents cover movement once the end box or access point lid is closed, providing enhanced protection against installation negligence and the growing insider threat



The Wiremold Data-Fense Secure Raceway System also has an extensive line of fittings and accessories to facilitate easy installation and deployment in virtually any building or scenario. Fittings are outfitted with welded raceway couplers on both ends which provide permanent attachment to adjoining raceway base segments.

Fittings accommodate the following routing configurations:

- Horizontal and vertical 45° and 90° turns
- · Horizontal and vertical 'T' Intersections
- Wall-penetrations
- Workstation drops
- Bridges to route around wall and corner obstructions



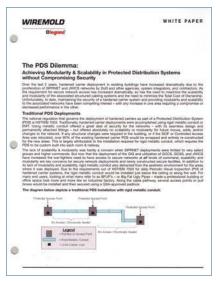






### Wiremold Data-Fense™ Secure Raceway: **Provides Maximum Security**

By utilizing a standard base and cover design, the Wiremold Data-Fense Secure Raceway System eliminates any concern with a distributed or proprietary locking mechanism that could introduce significant system vulnerabilities. In addition, the couplings used to connect the base and covers sections together has been extended to provide a full 6" overlap between sections to protect against any attempt to penetrate the raceway at a seam. As a result of these innovative design elements, Wiremold Secure provides an unparalleled level of security against overt, covert, and surreptitious attacks.



The PDS Solution whitepaper is available  $at\ www.gocsc.com/SecureIT\_WhitePapers$ 





### Accessibility Without Compromising Security

Once installed, the Wiremold Data-Fense Raceway is easily re-enterable through any of the end boxes or access points (which are secured with a Sargent & Greenleaf Hardened Steel padlock.) Once the raceway system is accessed, the covers can be slid open to facilitate easy move, adds, or changes, additional cable or network installation, or expansion of the PDS raceway system. Most importantly, by avoiding the use of a distributed locking mechanism, the Wiremold Secure Solutions Raceway provides easy re-entrability, scalability, and reconfigurability WITHOUT sacrifing the security of the raceway or protection of the networks. In fact, Data-Fense enhances the effectiveness of the Periodic Visual Inspection to detect tampering or unauthorized access by incorporating several design enhancements:

- Incorporating overlapping and interlocking couplers on the base, cover, and fittings. Protects against seam penetrations and overt attacks. Prevents a single cover section from being removed without affecting the adjacent sections
- . Extending the sides of the raceway cover to create a security flange eliminates the ability to utilize a seam penetration using fish tape and/or an optical lense this protects against compression of the raceway to 'pop' the cover into the base or crush the raceway
- Locating all seams between the base and the cover on the front of the raceway, facilitates easy inspection of the raceway system by periodic visual inspections and technical inspections

CSC PART NO.	MFR. PART NO.	DESCRIPTION	
Wiremold Data	-Fense™ Raceway _		
796161	WSSR-B	Raceway Base 120"	
796171	WSSR-B1	Raceway Base 12"	
796174	WSSR-B2	Raceway Base 24"	
796175	WSSR-B5	Raceway Base 60"	
796163	WSSR-C	Raceway Cover 5'	
796176	WSSR-C1	Raceway Cover 1'	
796177	WSSR-C2	Raceway Cover 2'	
Wiremold Data	-Fense Raceway Fitt	ings	
796167	WSSR-1017F0	Inside 90° Elbow	
796186	WSSR-1011F0	Horizontal 90° Elbow	
796196	WSSR-1018F0	Outside 90° Elbow	
796192	WSSR-1015F0H	Horizontal Tee Fitting	
796194	WSSR-1015F0V	Vertical Tee Fitting	
796445	WSSR-V0	Horizontal Bridge Fitting	
		- C	

CSC PART NO.	MFR. PART NO.	DESCRIPTION			
Wiremold Data-	Wiremold Data-Fense Raceway Access Points				
796450	WSSR-MSB	MidSpan Box			
796448	WSSR-1SB	Slack Box			
796447	WSSR-ETERM	End Termination Box			
Wiremold Data-	Fense Drop-Out an	d Workstation Fittings			
796281	WSSR-D0	WSSR Drop-Out Fitting			
796446	WSSR-DT	Work Station Access Desk Top Box			
796253	WSSR-DTFB	Work Station Desk Top Fiber Loop Bracket			
796443	WSSR-TWH-RI	Horizontal Conduit Thru-Wall Fitting			
796444	WSSR-TWV-RI	Vertical Conduit Thru-Wall Fitting			





### Wiremold Data-Fense<sup>™</sup> 2x2 Channel

For many Protective Distribution System (PDS) deployments, both aesthetics AND re-enterability or scalability is a key attribute. However, for limited deployments or low-density areas where re-enterability is not as critical, Wiremold Secure Solutions provides the 2x2 channel solution — an epoxy-based, conduit solution that is aesthetically-pleasing and more economical than a re-enterable raceway.





### Wiremold Data-Fense 2x2 Channel Fittings

Similar to the design and installation of standard EMT or rigid metallic conduit, the 2x2 Channel utilizes standard 45°, 90°, and 'T' connectors to facilitate easy installation and routing in virtually and building or deployment scenario. The fittings are attached to the 2x2 Channel by utilizing a high-strength epoxy that provides structural integrity and a means to detect tampering and unauthorized access of the PDS system. The conduit system makes use of secure access points and pull boxes — much like EMT — to facilitate cable installation and moves, adds, and changes. In addition to being used as a complete PDS solution in and of itself, the 2x2 Secure Channel is also used to facilitate workstation drop-offs from the Wiremold Data-Fense Raceway (WSSR). Using the Secure Drop-Out Fitting, the 2x2 Channel can be routed from the WSSR to one or multiple workstations or access points. The Drop-Out Fitting also provides for multiple levels of security by incorporating enhanced protection against overt and covert attacks — and enables the use of DoD Security Seals if necessary.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
Wiremold Data	-Fense™ Channel	
796451	WSSR-2X2RW	2" Secure Channel (10' sections)
Wiremold Data	-Fense Channel Fitti	ngs
796465	WSSR-2X2TEE	2" Secure Channel Tee Fitting
796462	WSSR-2X2E90	2" Secure Channel 90° Elbow Fitting
796463	WSSR-2X2MB	2" Secure Channel Mounting Bracket
796452	WSSR-2X2C	2" Secure Channel Coupling
796457	WSSR-2X2EC	2" Secure Channel End Cap
796453	WSSR-2X2CA	2" Secure Channel Conduit Adapter
796464	WSSR-RED	Secure Raceway (1.75 x 4.75") to Secure Channel (2 x 2") Interface
796281	WSSR-2X2D0	WSSR Drop-Out Fitting

### Wall Attachment Hardware

CSC PART NO.	DESCRIPTION
Gypsum/Drywall	
801972	Kit: ½" Bolts, 3" Length and SnapToggle® Toggle Bolt Anchor, (¾ to 2½" wall thickness), 10 Pack
Concrete/Solid V	Vali
801974	Alligator® Solid-Wall Anchor, 100 Pack
801976	#12 x 3½" Sheet Metal Screws, 100 Pack
000 DART NO	Prophysical
CSC PART NO.	DESCRIPTION
Call	1½" Nylon Spacer for Wall Standoff, Package of 10*
Call	Touch Paint (aerosol can) 1 Can*

\*Contact your local CSC Representative for more information.





### Wiremold Data-Fense™ Enclosures

Over the last few years, Wiremold has been manufacturing secure enclosures for several OEM customers and has just began to offer their products directly to customers. Wiremold Data-Fense™ Enclosures are manufactured from 16 AWG Steel with welded seams, no knock-outs, and no external hinges.



Wiremold Data-Fense Raceway has a wide range of Secure Enclosures pre-designed to include:

- Single and multiple workstation lock boxes
- · Secure access points and pull boxes
- Secure zone box for active equipment (i.e. holds Workground switch + Interconnect hardware)
- Secure equipment enclsoure (i.e. dual-sided enclosure for high/low separation)

Because of their agile manufacturing capability, Wiremold offers several standard-size Secure Enclosures, but also has the capability to manufacture an enclosure to meet any requirement. Wiremold can often modify an existing design to meet new size requirements and provide finished product within a 3-4 week time period.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
795839	WSSE-8-13-2	Secure Work Station Access Enclosure — 8W x 13H x 2D; Solid Welded External Seams c/w Removable Hinged Door, Padlock Hasp,
		and Painted Textured Ivory
795843	WSSE-29-42-10	Secure Zone Box for Active Equipment — 29W x 42H x 10D; Solid Welded External Seams c/w Internal and External Ventilation Louver Panels,
		Hinged Door with Internal Sub Panel, Available with Sound Dampening Insulation, Two Shelf Racks for Adjustable Shelving, Three-Point
		L-Handle with Built in Padlock Hasp, and Painted Textured Ivory
796468	WSSE-36-30-9	Secure Enclosure — 36W x 30H x 9D; Solid Welded External Seams c/w Double Removable Hinged Doors, Three-Point L-Handle with Built-In
		Padlock Hasp and Painted Textured Ivory. Enclosure Can Be Made Available with Internal Divider for HIGH/LOW Security, Both Sides Would Have
		Separate Locking Mechanisms — Shelf Racks for Adjustable Shelving or Plywood Sub Panels.
796466	WSSE-60-48-16	Secure Enclosure — 60W x 48H x 16D; Solid Welded External Seams c/w External Ventilation Louvers and Internal Vent Panels, Hinged Doors
		with Internal Sub Panels, c/w Three-Point L-Handles with Built-In Padlock Hasp and Painted Textured Ivory. Enclosure Can Be Made Available
		with Internal Divider for HIGH/LOW Security, Both Sides Would Have Separate Locking Mechanisms — Shelf Racks for Adjustable Shelving
		or Plywood Sub Panels.

NOTE: Product is available in more than 100 different colors and finishes. Contact your local CSC Representative for more information.



"The superior protection eliminated the need for a distributed locking mechanism, which ultimately reduced our cost and complexity on install."





While Legrand/Wiremold has designed the Data-Fense™ Secure Raceway System for secure applications, they have been manufacturing one of the most extensive offering of cable pathway and management products for commercial applications since 1900. The next two pages contains an overview of standard Wiremold products that are applicable for routing secure network cabling inside of a SCIF or Controlled Access Area (CAA).



### Wiremold Uniduct One-Piece Latching Raceway:

The Uniduct Non-Metallic Latching Raceway System is a one-piece single-channel design, ideally suited to route and protect fiber optic, UTP, and and other low-voltage (50V or less) cables in an easy-to-install and aesthetically pleasing application. The 2800 and 2900 Fiber Optic (FO) fittings maintain a  $1\frac{1}{4}$ " (32mm) bend radius and are the perfect solution for even the most demanding cabling applications.





### **Features and Benefits**

- One-piece design easy to handle and install
- Easy open and snap-close latch installations, moves, and changes are quick and easy
- Durable, flexible hinge construction allows for repeated openings and closings while maintaining product integrity and aesthetics
- Adhesive backing makes installation quick and easy
- Fiber compliant fittings maintain 11/4" (32mm) bend radius for UTP and fiber optic cable
- Available in three low profiles, in both 6' and 8' (1.8m and 2.4m) lengths allows for flexibility for cabling requirements; 6' and 8' (1.83m and 2.4m) lengths minimize cutting, cover clips, and scraps
- Made of durable impact-resistant PVC easy to cut and trim; full selection of fittings; surface mount boxes and multiport workstation outlets makes installations quick and easy
- · Available in three standard colors ivory, white, and fog white; consult CSC for custom colors; paintable using latex paint
- Datacom connectivity options accepts industry standard and proprietary devices from a wide range of manufacturers to provide
  a seamless and aesthetically pleasing interface for voice, data, audio, and video applications at the point of use







2800



2900

CAT. NO.	Α	В
2700	%" (9.5mm)	¾" (19.1mm)
2800	½" (12.7mm)	1" (25mm)
2900	¾" (19.1mm)	1½" (38mm)

### Uniduct 2700, 2800, 2900 Series Latching Raceway Wire Fill Capacity Chart

Cable Type	Category Designation	O.D. Inches (mm)	2700 Raceway 40% Fill	2800 Raceway 40% Fill	2900 Raceway 40% Fill	
Unshielded Twisted Pair	4-Pair, 24 AWG Category 3	0.190 (4.8)	2	4	12	
	4-Pair, 24 AWG Category 5e	0.210 (5.3)	1	3	10	
	4-Pair, 24 AWG Category 6	0.250 (6.3)	1	2	7	
	4-Pair, 24 AWG Category 6a <sup>3</sup>	* 0.354 (8.9)	0	1	3	
	25-Pair, 24 AWG	0.410 (10.4)	0	1	2	
Coaxial	RG6/U	0.270 (6.9)	1	2	6	
Fiber	ZipCord	0.118 X 0.236 (3 x 6)	2	4	12	
	Round 4 Strand Fiber	0.187 (4.8)	2	4	12	
	Round 6 Strand Fiber	0.256 (6.5)	1	2	6	

NOTE: Wire capacity is reduced to allow for proper conductor bend radius and maximum permissible heat rise.

\*Category 6 augmented (6a) cable for 10 gigabit ethernet — max. allowed cable diameter per addenda No. 11 ANSI TIA/EIA 568-B.2.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
710759	2700	Uniduct 2700, 1 Piece, 0.75"W x 0.38"H x 72"L, Non-Metallic, White
710534	2800	Uniduct 2800, 1 Piece, 1"W x 0.5"H x 72"L, Non-Metallic, White
497148	2900	Uniduct 2900, 1 Piece, 1.5"W x 0.75"H x 72"L, Non-Metallic, White

**CORNING** 





### Secured Zone Box

Corning Cable Systems Fiber Zone Box is ideal for interconnect or cross-connect points in data center zone or horizontal distribution areas.

- Removable back plate increases ease of installation
- Robust, keyed lock provides security against unauthorized access
- · Multi-position bulkhead dramatically increases ease of use in subfloor/overhead applications
- · White, hinged, removable door matches ceiling tile for a clean, discreet installation point

- UL® Listed to US and Canadian standards; NEMA 1, 2, 5, 12K Rated
- Fits in a 2' x 2' drop ceiling or subfloor opening and is also wall-mountable
- Sealed to inhibit dust and liquid penetration
- Accepts up to 12 CCH connector panels/modules for LC duplex, SC, SC duplex, FC, MT-RJ, ST® Compatible, and MTP® Connector fiber termination/distribution
- Occupies 4U of 19" rack space





SC PART NO.	MFR. PART NO.	DESCRIPTION

Secure Fiber Zone Box with Knockouts to Accept up to 12 CCH Adapter Panels or RDM Module, Secure Hidden Hinges, Accepts Padlock 796539 FZB-12P-85-S

### PanZone® In-Ceiling Enclosures

Zone Cabling Topology provides a cost-effective alternative to deploying your network infrastructure by increasing the network's flexibility, accessibility, and scalability by locating switching and patching components closer to workstations and reducing congestion in telecommunications rooms.

### **Features**

- Accepts up to 2 RU of active electronics as deep as 17.5" and up to 6 RU of standard 19" passive connectivity (PZICEA only)
- Designed to accept up to 8 RU standard 19" passive connectivity (PZICE only)

MFR. PART NO.

- Thermal management design optimizes air flow for improved heat dissipation
- Mount in 2' x 2', 2' x 4', and 2' x 6' drop ceilings
- UL® 2043 Plenum Rated and UL 1863 Rated

### Benefits

- Allows small switchgear to be located locally to workstations, reducing the number of cables coming from the telecommunications room
- Allows patching to be located locally to the workstation for easier moves, adds, and changes
- Thermal load of active equipment is managed, maximizing equipment life
- Designed to mount in popular ceiling systems
- bility

•	for quick and easy installation Rated to relevant UL® Listings for compatib with local building ordinances
Active Er	nclosure
Enclosur	e



Panduit®

### Fully Assembled In-Ceiling A **PZICEA PZICE** Fully Assembled In-Ceiling E

DESCRIPTION

### PanZone® Wall Mount Cabinets and Enclosures

Zone Cabling Topology provides a cost-effective alternative to deploying your network infrastructure by increasing the network's flexibility, accessibility, and scalability.

### **Features**

CSC PART NO.

- · Cabinets hold 12 RU of active and passive network equipment plus two additional RU for power strips and electronic devices
- Active wall mount enclosure holds up to 3 RU of passive equipment and up to 3 RU of active equipment
- Integrates data communication and building automation systems by converging the infrastructure into a single Ethernet network
- Wall mount consolidation point enclosure can be directly mounted to a wall or recessed into a wall

### **Benefits**

- Allow multiple RU of switching and patching capability to be located closer to workstations
- Active wall mount enclosure places switching and patching in a vertical orientation to minimize its mounting depth off of the wall
- Building automation enclosure is designed for panel mountable building automation devices; includes patching for Ethernet interfacing
- Wall mount consolidation point enclosure when punch down installations are required



CSC PART NO.	MFR. PART NO.	DESCRIPTION
822976	PZC12S	Wall Mount Cabinet with Solid Front Door; Black
827043	PZC12P	Wall Mount Cabinet with Perforated Front Door; Black
796121	PZC12W	Wall Mount Cabinet with Windowed Front Door; Black

CSC PART NO.	MFR. PART NO.	DESCRIPTION
758274	PZAEWM3	Active Wall Mount Enclosure Includes Mounting
		Template for Quick Installation
947855	PZBASE3	Building Automation Systems Enclosure
778076	PZB4	Enclosure (door not included)





### **Consolidation Point Boxes**

Multi-User Telecommunications Outlet Assemblies (MUTOA) allow jacks to be placed near an array of workstations and can be used above ceiling, below floor, or mounted on the wall.

### **Features**

- Suitable for wall mount and under floor applications
- UL® 2043 approved for use in air-handling spaces for copper applications
- Accept Mini-Com® Modules
- · Supplied with cable management accessories
- · CUFMB24BL and CUFB48BL can be utilized with fiber

- · Flexibility for virtually, any workstation need
- Rated to relevant UL Listings for compatibility with local building ordinances
- Accept Mini-Com® Modules for STP and UTP, fiber optic, and audio/video, which snap in and out for easy moves, adds, and changes
- Included accessories allow quicker installation
- · Optional fiber conversion kit available







WMCPE

PZRFE4

CSC PART NO.	MFR. PART NO.	DESCRIPTION
591191	CUFMB24BL	24-Port Aluminum Under Floor Consolidation Point Box Includes Pre-Printed Numbered Labels with Writable Surface on Back
536768	CUFB48BL	48-Port Under Floor Consolidation Point Box Made of 16-Gauge Rugged Steel for Long-Term Durability
879370	WMCPE	Punch Down Consolidation Point Enclosure

### PanZone® Raised Floor Enclosures

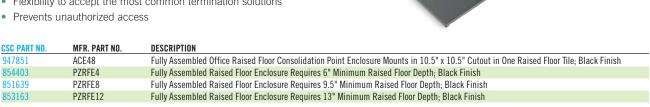
Raised Floor Zone Enclosures allow local patching to either workstations or active equipment in the data center or office raised floor environment. Patching can be moved from the rack in the data center or telecommunications room to available under floor space close to equipment for faster moves, adds, and changes.

### **Features**

- Work with standard office and data center raised floor tiling systems
- Include Cool Boot™ Raised Floor Air Sealing Grommet
- The ACE48 accepts all Mini-Com® Modules; the PZREF Series accepts standard 19" patch panels
- Accept field terminated or pre-terminated connectivity solutions
- Secure lockable cover

### **Benefits**

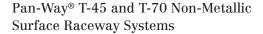
- Designed for easy installation in any raised floor systems
- Cool Boot™ Grommet technology controls airflow into enclosure and allows quick moves, adds, and changes
- Accept Mini-Com® Modules for STP and UTP, building automation connectors, fiber optic, and audio/video, which snap in and out for easy moves, adds, and changes
- Flexibility to accept the most common termination solutions



ACE48







T-45 and T-70 Raceway Systems are multichannel tamper-resistant raceways that provide a solution for routing copper, fiber optic, and/or power cabling along fixed perimeter walls. T-45 Surface Raceway terminates using the T-45 Hinged Data and Power brackets, T-45 Offset Box, and select Pan-Way® Surface Mount Outlet Boxes. T-70 features the Workstation Outlet Center™ Offset Box, which provides an offset solution to maximize channel capacity and outlet density. Both are supplied with prepunched mounting holes.

### **Features and Benefits**

- UL® Listed and CSA Certified to 600V rating; meets UL5A and CSA C22.2 No. 62. 1-03, standards
- Bend radius control is maintained throughout the entire raceway system as required by TIA/EIA
- T-45 multi-directional cover hinge allows cable installation from either side
- Hinged data and power brackets for T-45 provide access for terminating outlets; latch is tamper resistant for maximum security
- T-70 utilizes a single channel with snap-in divider wall (physical separation between channels) that allows the routing of both power and data cabling in a single raceway



CSC PART NO.	MFR. PART NO.	DESCRIPTION
T-45 Non-Metall	ic Raceway	
490660	T45BIW8	Base, 8', Off White
947587	T45BUIW10	Base, 10', Off White
490662	T45CIW8	Cover, 8', Off White
517890	T45CIW10	Cover, 10', Off White
549529	T45DW8	Divider Wall, 8', Grey
535722	T45CCIW-X	Cover Couplers, Off White
503080	T45RAIW	Right Angle Fittings, Off White
490665	T45ICIW	Inside Corner Fittings, Off White
535425	T450CIW	Outside Corner Fittings, Off White
947581	JP1FSIW-A	Single-Gang Outlet Box, Off White
490664	T45HDBIW	Snap-On Hinged Data Bracket, Off White

CSC PART NO.	MFR. PART NO.	DESCRIPTION
T-70 Non-Metall	ic Raceway	
479645	T70BEI8	Base, 8', Electrical Ivory
506754	T70BEI10	Base, 10', Electrical Ivory
479650	T70CEI8	Cover, 8', Electrical Ivory
490685	T70CEI10	Cover, 10', Electrical Ivory
480533	T70DW8	Divider Wall, 8', Grey
472312	T70CCEI-X	Cover Coupler Fitting, Electrical Ivory
479643	T70BCEI-X	Base Coupler Fitting, Electrical Ivory
479661	T70RAEI	Right Angle Fitting, Electrical Ivory
479657	T70ICEI	Inside Corner Fitting, Electrical Ivory
331116	T700CEI	Outside Corner Fitting, Electrical Ivory
706591	T70FH2EI	Snap-On Horizontal Faceplate,
		Two Modules, Electrical Ivory
706592	T70FH4EI	Snap-On Horizontal Faceplate,
		Four Modules, Electrical Ivory

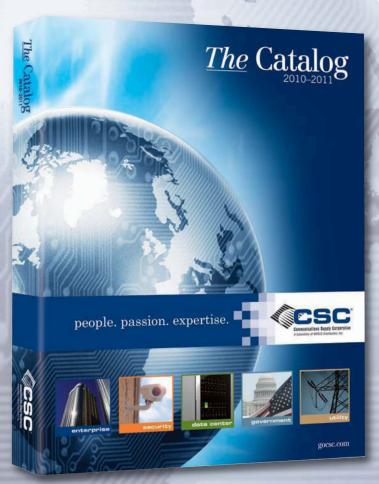
NOTE: Additional sizes, colors, and fitting configurations available.



"Every job is different and presents us with different challenges. The Secure<sup>(it)</sup> Program has the solutions we need to route copper, fiber and power for every job."

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**CORNING** 







## The solutions featured on pages 96–101 include:

- Red/Black Separation
- Multiple Network Access
- KVM and A/B Switching
- Color Coding and Labeling
- Secure Access to Shared Workstations

## Workstation Access







www.gocsc.com/secureIT





### SwitchView<sup>™</sup> SC Switch

Secure switching at your desktop.

### **Features**

- Consolidate multiple workstations of varying security classification levels with one keyboard, monitor, and mouse
- NIAP Common Criteria validated to EAL 4+
- Avocent designs products that go beyond the protection profile; security features are model dependent
- Secure switches maintain channel separation at 60 dB for each port (SC400 Series, SC 500 Series, SC4 UAD, SC4 PDV, SC8 PDV only)
- DVI-I support: VGA or DVI connections supported, allowing easy migration to DVI (SC 400 and SC 500 Series, SC4 UAD, SC4 PDV, SC8 PDV)



### **Benefits**

- Secure allows secure multi-level switching while maintaining data separation
- Comprehensive suite of features, including smart card/CAC support, USB or VGA, DVI or VGA, and audio
- Cost-effective eliminates redundant desktop peripherals, saving energy and equipment costs while improving user experience

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947616	SC540-001	Up to Four Servers, USB Peripherals, Dual Monitor, Dual Link DVI-I (resolution up to 2560x1600 @ 60 Hz), CAC, Audio
947617	SC420-001	Up to Two Servers, USB Peripherals, Dual Link DVI-I (resolution up to 2560x1600 @ 60 Hz), CAC, Audio
947618	SC440-001	Up to as many as Four Servers, USB Peripherals, Dual Link DVI-I (resolution up to 2560x1600 @ 60 Hz), CAC, Audio
798267	SC4UAD-001	Up to as many as Four Servers, USB Peripherals, DVI-I (resolution up to 1920x1200 @ 60 Hz), Audio Support
947619	SC120-001	Up to Two Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz)
947620	SC140-001	Up to as many as Four Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz)
837661	SC180-001	Up to as many as Eight Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz)
947621	SC220-001	Up to Two Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz), CAC
850155	SC240-001	Up to as many as Four Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz), CAC
947622	SC280-001	Up to as many as Eight Servers, Supports PS/2 and/or USB Peripherals, VGA Video (resolution up to 2048x1536 @ 85Hz), CAC
798259	SC4PDV-001	Up to as many as Four Servers, Supports PS/2 Peripherals. Single Link DVI-I Video (DVI or VGA with resolution up to 1920x1200 @ 60Hz)
798283	SC8PDV-001	Up to as many as Eight Servers, Supports PS/2 Peripherals. Dual Head, Dual Link DVI-I Video (resolution up to 2560x1600 @ 60Hz)

NOTE: Cables sold separately.

The SwitchView SC secure switches are compatible with most keyboards, mice, monitors, and smart card readers. For specific configurations, contact your local CSC Representative.



"Managing a data center is a complex process of managing capacity, assets, control, costs, business demands and more. Managing one for our Government Customer means it's even more important we have the tools to do it right."







### **KeyConnect Faceplates**

CSC PART NO.

869017

861560

842457

842456

793781

793785 793786

793787

869020

848422

854477

848417

KeyConnect Faceplates combine flexibility and ease of use in work area installations. They are designed to accept the KeyConnect Modular Jacks and KeyConnect Multimedia Modules. The KeyConnect Plates are available in single-gang and double-gang and can accept up to 6 and 12 modules, respectively. They also have labeling capabilities using built-in labeling windows. The faceplates can be attached to standard electrical boxes or wall mounting hardware for flush-mount installations. The faceplates can also fit over the KeyConnect Adapter Boxes for surface mount installations. Modules are ordered separately.

KeyConnect Faceplates — Single-Gang, 1-Port, Almond

KeyConnect Faceplates — Single-Gang, 2-Port, Almond KeyConnect Faceplates — Single-Gang, 2-Port, Elec. White

KeyConnect Faceplates — Single-Gang, 4-Port, Almond KeyConnect Faceplates — Single-Gang, 4-Port, Elec. White

KeyConnect Faceplates — Single-Gang, 6-Port, Almond

KeyConnect Faceplates — Double-Gang, 6-Port, Almond

KeyConnect Faceplates — Single-Gang, 6-Port, Elec. White

KeyConnect Faceplates — Double-Gang, 6-Port, Elec. White

KeyConnect Faceplates — Double-Gang, 12-Port, Elec. White

KeyConnect Faceplates — Double-Gang, 12-Port, Almond

KeyConnect Faceplates — Single-Gang, 1-Port, Elec. White











### MediaFlex Faceplate Kits

MFR. PART NO.

AX103922

AX102660

AX103923

AX102655

AX102248

AX102249

AX102250

AX102251

AX102670

AX102671

AX102256

AX102257

MediaFlex Plates and Inserts snap together to create a full line of modular workstation outlets. This product line, called the MediaFlex Modular Outlet Series, has been designed with the help of industrial designers, as well as other professionals in the industry, in order to combine flexibility, ease of use, and high-tech aesthetics for work area installations. For copper and fiber optic solutions, all components in kits are also available separately. Even though the MediaFlex series is a modular outlet system, ease and flexibility in ordering and inventory management are also considered with the offering of pre-configured faceplate kits (includes plate, flush KeyConnect inserts, filler inserts, blank, labeling window covers, labeling paper, and all necessary mounting screws).

CSC PART NO.	MFR. PART NO.	DESCRIPTION
869021	AX102428	KeyConnect Style — Flush, Single-Gang, 4-Port, Almond
869022	AX102430	KeyConnect Style — Flush, Single-Gang, 6-Port, Almond
869023	AX102429	KeyConnect Style — Flush, Single-Gang, 4-Port, Elec. White
869024	AX102431	KeyConnect Style — Flush, Single-Gang, 6-Port, Elec. White



### KeyConnect and MediaFlex Surface Adapter Boxes

The KeyConnect and MediaFlex Surface Adapter Boxes enable surface mounting of KeyConnect and MediaFlex Plates. The boxes can be mounted on any flat surface or can be attached to standard electrical boxes or wall mounting hardware for additional storage space.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
881710	AX104127	KeyConnect — Single-Gang Back Box, Almond
862989	AX102657	KeyConnect — Single-Gang Back Box, Elec. White
881712	AX104130	KeyConnect — Double-Gang Back Box, Almond
869958	AX104131	KeyConnect — Double-Gang Back Box, Elec. White

CSC PART NO.	MFR. PART NO.	DESCRIPTION
867534	AX102481	MediaFlex — Single-Gang, Almond
707028	AX102482	MediaFlex — Single-Gang, Elec. White
739773	AX101874	MediaFlex — Double-Gang, Almond
707028	AX101875	MediaFlex — Double-Gang, Elec. White

Also Available: KeyConnect Stainless Steel Faceplates, KeyConnect Wall Mount Phone Plates, and KeyConnect Modular Furniture Adapters and Boxes. See Page 74 for Belden Modular Jacks & Inserts.





### Wall-Plate Outlet (WLL)

Corning Cable Systems Wall-Plate Outlet (WLL) is a highly configurable outlet product, designed for use in secured fiber-to-the-desk (FTTD) applications.

### **Features**

- Single-gang wall-plate outlets are available with up to 6-port capacity while double-gang versions offer 12-port capacity
- Also available with angled faces that allow fiber connectors and jumpers to easily transition and exit down the wall
- A variety of fiber and copper adapters may be loaded in the wall-plate outlet in any configuration

- · Mounts to single-gang or double-gang electrical outlets for ease of installation
- May be purchased as individual components or fully configured and populated in customer-specified orientation
- Can also be used to connect telephones and other peripherals to a network









CSC PART NO.	MFR. PART NO.	DESCRIPTION
947462	WLLAP-A9B3BEBG	Loaded Single Gang, 4 Ports Angled with LC Duplex Adapters, Keyed Front/Non-Keyed Back
947461	LLBQ-ABDEFGHJ	Loaded Double Gang, 8 Ports Angled with LC Duplex Adapters Keyed Front/Non-Keyed Back

### WallSource<sup>™</sup> Multiple Service Box

The Wiremold WallSource multiple service box enables highly customizable power and communications connections at a single point in the wall. Faceplates and connectivity inserts fit virtually any configuration and can be used with slide-in dividers to provide a mix of communications and power, or a mixture of secure and non-secure communications with separate chambers and conduit feeds.



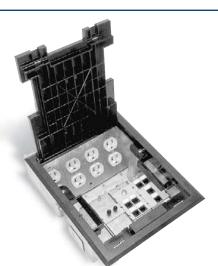
- Adjustable mounting brackets mount box in ½", ¾", 1", and 1¼" (12.7mm, 15.9mm, 25mm, and 32mm) wall-applications with these brackets
- Dividers the field installed barriers provide shielding to allow communications and power in one in-wall box
- Knockouts accommodates ½", ¾", 1", and 1½" trade size openings
- Accommodates multiple services housing power and communications services in one box eliminates multiple drops and uneven faceplates on the wall
- Available fiber storage spool holds 18" (457mm) of excess cables for future use
- Helps reduce installation time compared to installing multiple boxes for power and communications, install one WallSource box for quicker installation
- Datacom connectivity options accepts industry standard and proprietary devices from a wide range of manufacturers to provide a seamless and aesthetically pleasing interface for voice, data, audio, and video applications at the point of use



CSC PART NO.	MFR. PART NO.	DESCRIPTION
798175	WSX42-2	WallSource Two-Gang Box, Dividers, Mounting Brackets
798177	WSX42-4	WallSource Four-Gang Box, Dividers, Mounting Brackets
798180	WSX42-6	WallSource Six-Gang Box, Dividers, Mounting Brackets
798182	WSX07-2A	Device Mounting Bracket and Trim Ring for Two-Gang WallSource
798183	WSX07-4A	Device Mounting Bracket and Trim Ring for Four-Gang WallSource
798184	WSX07-6A	Device Mounting Bracket and Trim Ring for Six-Gang WallSource







### FloorSource™ Raised Floor Boxes

The Walker FloorSource Series from Legrand/Wiremold offers a large selection of raised floor boxes that provide unparalleled functionality, flexibility, accessibility, and capacity for raised floor applications in SCIF or secured areas. Legrand/Wiremold provides four unique styles of boxes plus an innovative round box, which allow users a wide variety of power and communication configurations.



PANDUIT®

- Locking tabs help secure box to floor panel; enabling quick and easy installation
- Units can be prewired for power prewired units reduce labor costs for field installation
- Large multi-compartment boxes provides adequate wiring capacity and easily isolates power and communication services
- Boxes have several different depth profiles
- Flexible box designs allows the end-user to configure services where they want and need them
- UL® Listed to U.S. and Canadian safety standards
- Meets NEC Section 300-22(C) for use in air handling spaces and raised floor plenums
- Datacom connectivity options accepts industry standard and proprietary devices

FloorSource™ Raised Floor Boxes are available in a wide array of sizes, configurations, and colors. Contact secure-it@gocsc.com for assistance in configuring a specific FloorSource solution to meet your needs.



### Mini-Com® Tamper-Resistant Faceplates

Mini-Com® Tamper-Resistant Faceplates provide additional security at the workstation by preventing unauthorized access to the connections.

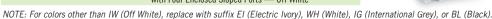
### Features

- Faceplate includes two tamper-resistant screws
- Made of impact-resistant materials
- Two-piece, sloped hinged design
- Accepts Mini-Com® Modules for UTP, STP, audio/video, and fiber

- · Prevents unauthorized access
- Durable material construction prohibits tampering
- Modules can snap in and out for easy moves, adds, and changes

connectivi	ty	by authorized personner
CSC PART NO.	MFR. PART NO.	DESCRIPTION
947580	CFPTR2IW	Single-Gang, Vertical Tamper-Resistant Faceplate with Two Enclosed Sloped Ports — Off White
703686	CFPTR4IW	Single-Gang, Vertical Tamper-Resistant Faceplate with Four Enclosed Sloped Ports — Off White
		with roul Eliciosed Stoped Ports — Off White





### LC Duplex Adapter Blockout Device

Panduit LC Duplex Adapter Blockout Device provides a quick, easy, and economical way to block unauthorized access to LC duplex switches and HBA/NIC ports, switch uplinks, and user outlets to reduce the risk of unintentional or intentional damage.

### Features and Benefits

- Saves time and money associated with security breaches, network downtime, repairs, and hardware replacement
- Device fits all industry standard LC duplex adapters/receptacles to accommodate all retrofit applications and new installations
- · Mechanically protects the LC adapter/receptacle optics and renders it "eye-safe" to prevent exposure to laser radiation and contamination on dust sensitive transceivers
- Can be installed without interfering with adjacent jacks, plugs, or connectors, even in high-density applications
- Eases installation in high-density patch fields and allows access to the network infrastructure only to authorized personnel



NOTE: For other colors, add suffix -BL (Black), -BU (Blue), -EI (Electric Ivory), -AQ (Aqua).











### SC Adapter Blockout Devices

The SC Adapter Blockout Device is inserted into an SC adapter to block unauthorized access to SC adapter switches and HBA/NIC ports, switch uplinks, and user outlets. This TIA/EIA-604 FOCIS-3 compliant tamper-resistant device fits all SC adapters, saving time and money associated with data security breaches, network downtime, infrastructure repair, and hardware replacement.

### **Features and Benefits**

- Device fits all industry standard SC adapters/receptacles to accommodate all retrofit applications and new installations
- Mechanically protects the SC adapter/receptacle optics and renders it "eye-safe" to prevent exposure to laser radiation and contamination on dust sensitive transceivers
- · Can be installed without interfering with adjacent jacks, plugs, or connectors, even in high-density applications
- . Device may only be released with the special removal tool, ensuring the safety and security of your network infrastructure

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Ten SC Adapter	<b>Blockout Devices</b> ;	One Removal Tool
885143	PSL-SCBD	Red

NOTE: For other colors, add suffix -BL (Black), -BU (Blue), -EI (Electric Ivory), -AQ (Aqua), -AG (Green).

### **RJ45 Jack Blockout Device**

The RJ45 Jack Blockout Device provides a simple and secure method to control access to data and deter vandalism to jacks. The jack module blockout device saves time and money associated with downtime, data security breaches, hardware replacement, and infrastructure repair.

### **Features and Benefits**

- Compatible with most RJ45 jacks to accommodate a variety of applications; does not interfere with jack contacts
- Device may only be released with the special removal tool, ensuring the safety and security of your network infrastructure
- · Enables color-coding for visual identification



NOTE: For other colors, add suffix -BL (Black), -BU (Blue), -YL (Yellow), -IW (International White), -GR (Green), -IG (International Grey), -OR (Orange).

### LC Duplex Lock-In Clip

The LC Duplex Lock-In Clip can only be used with Opti-Core® LC and Keyed LC Patch Cords to limit access and prevent unauthorized removal of cable, other networking equipment, or critical connections.

### **Features and Benefits**

- Reduces costs associated with network downtime, data security breaches, and hardware replacement due to theft
- Same removal tool can be used with both the LC duplex lock-in clip device and the LC duplex adapter blockout device

CSC PART NO.	MFR. PART NO.	DESCRIPTION
Ten LC Duplex I	Lock-In Clips; One I	Removal Tool
856312	FLCCLIW-X	Off White

### RJ45 Plug Lock-In Device

The RJ45 Plug Lock-In Device is an innovative solution that secures connections to reduce network downtime, data security breaches, and hardware replacement due to theft. The versatile design works with most existing patch cords, faceplates, patch panels, IP cameras, and other IP devices.

### **Features and Benefits**

- Prevents unauthorized removal of cable, IP phone, other networking equipment, or critical connection; compatible with VoIP phones to deter unauthorized users from moving or stealing phones, helping to maintain E911 availability and compliance
- Can be installed without interfering with adjacent jacks and plugs, even in high-density applications
- · Allows plug to be locked into or released from jack for enhanced physical security
- · Enables color-coding for visual identification

CSC PART NO.	MFR. PART NO.	DESCRIPTION			
Flush: Works with Flush Mount Jacks — Ten RJ45 Plug Lock-In Devices; One Installation/Removal Tool					
947854	PSL-DCPLX	Red			
Recessed: Works with Recessed Jacks — Ten RJ45 Plug Lock-In Devices; One Installation/Removal Tool					
947582	PSL-DCPRLX	Red			

NOTE: For other colors, add suffix -BL (Black), -BU (Blue), -YL (Yellow), -IW (International White), -GR (Green), -IG (International Grey), -OR (Orange).











### Fast Ethernet and Gigabit Ethernet NIC Cards

By utilizing Transition Networks line of Fast Ethernet and Gigabit Ethernet Network Interface Cards (NIC), users will gain the benefits associated with deploying fiber optics within the LAN environment — including expanded bandwidth capacity and the increased data security associated with delivering fiber directly to the desktop.

Transition's NICs provide either a 100BASE-FX or 1000BASE-SX/LX fiber port to deliver low-cost, fiber optic connectivity to the desktop in fiber-rich LAN environments. With both standard and low-profile form factors, driver support for most popular operating systems, and PCI 2.2 plug-and-play capability, installation is a breeze in virtually any PC in your network.



CSC PART NO.	MFR. PART NO.	DESCRIPTION
947914	N-FX-ST-02F	100Base-FX 1300nm MM (ST) NIC Card (2km/1.2mi.) Link Budget: 12.0 dB
947915	N-FX-SC-02F	100Base-FX 1300nm MM (SC) NIC Card (2km/1.2mi.) Link Budget: 12.0 dB
947916	N-FX-LC-02F	100Base-FX 1300nm MM (LC) NIC Card (2km/1.2mi.) Link Budget: 12.0 dB
947935	N-GSX-SC-01F	1000Base-SX 850nm MM (SC) NIC Card (62.5 µm: 220m/722', 50 µm: 550m/1804') Link Budget: 8.5 dB
947917	N-GSX-LC-01F	1000Base-SX 850nm MM (LC) NIC Card (62.5 μm: 220m/722', 50 μm: 550m/1804') Link Budget: 8.5 dB



### Cisco Compatible Small Form Factor Pluggables (SFPs)

Transition Networks' SFPs are small form factor, hot-pluggable transceivers that allow for a single piece of network equipment to be connected to a multitude of interfaces, protocols, and transmission media via a SFP port. SFPs offer a cost-effective and flexible means to accommodate for network modifications and growth, while still using existing network devices. Transition Networks' SFP modules are compatible with all Cisco SFP-based routers and switches, and are also recognized by the Cisco IOS as a plug-and-play fiber module.

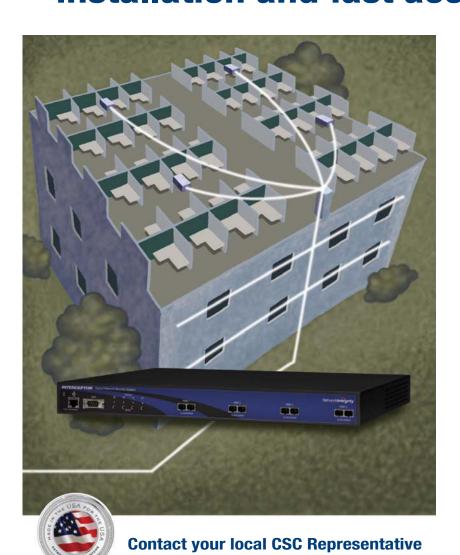


CSC PART NO.	MFR. PART NO.	DESCRIPTION
828604	TN-GLC-T	1000BASE-T (RJ-45) (100m/328ft)
828603	TN-GLC-SX-MM	1000BASE-SX 850nm (LC) MM (62.5 µm: 220m, 50 µm: 550m) Link Budget: 8.5 dB
828602	TN-GLC-LH-SM	1000BASE-LX 1310nm (LC) SM (10km/6.2mi) Link Budget: 10.5 dB
828605	TN-GLC-ZX-SM	1000BASE-LX 1550nm (LC) SM (80km/49.7mi) Link Budget: 24.0 dB
885002	TN-SFP-GE-S	1000BASE-SX 850nm (LC) MM (62.5 μm: 220m, 50 μm: 550m] Link Budget: 8.5 dB Operating Temperature: -40° C to 85° C
885027	TN-SFP-GE-L	1000BASE-LX 1310nm (LC) SM (10km/6.2mi) Link Budget: 10.5 dB Operating Temperature: -40° C to 85° C
947918	TN-SFP-GE-Z	1000BASE-LX 1550nm (LC) SM (80km/49.7mi) Link Budget: 24.0 dB Operating Temperature: -40° C to 85°C

## Are you faced with these PDS challenges?

- Increasing demand for secure network connections
- Ineffective legacy infrastructure security systems
- Designs not supporting new building secure network needs
- Desire for more aesthetically pleasing facilities
- Non-compliant PDS
- Inability to preform the required inspections of your PDS

# INTERCEPTOR™ is the answer for easy installation and fast accreditation.



or visit www.gocsc.com/SecureIT

Affordable and easy to install, the INTERCEPTOR™ Optical Network Security System has been securing classified networks since 2003

- May eliminate the unreliable process of periodic visual inspections of hardened PDS
- Increase the aesthetics of your facility
- Maximize network security while maintaining full bandwidth utilization

INTERCEPTOR can secure your new or pre-existing cable infrastructure with no disruption to the building or its tenants.

APPROVED for use up to TS/SCI level networks



We Bring Security To Light™





## **Industry-Leading Manufacturers...**











We Bring Security To Light™





## The solutions featured on pages 104–118 include:

- NISTSSI 7003 Compliant Solutions
- DoD Approved
- Integrated with Legacy Systems
- Lower Cost and Complexity
- Design Services

# Secure Network Solutions

Specialty Products ......104-118











INTERCEPTOR™ Optical Network Security System





We Bring Security To Light™

INTERCEPTOR design style shown available late 2011

SIPRNet deployments are accelerating across government and military installations worldwide, resulting in explosion in SCIF construction and SIPRNet access points throughout the facilities. The traditional PDS approach of installing unencrypted SIPRNet cables inside of EMT or sealed metallic raceway below the ceiling is costly, detracts from building aesthetics, and requires an extensive amount of time for installation that is disruptive to personnel and operations within the facilities.

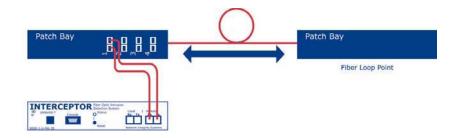
### **INTERCEPTOR Solution**

The INTERCEPTOR™ Optical Network Security System is an Alarmed Carrier PDS that easily installs on and protects networks carrying national security information. Using INTERCEPTOR to monitor the optical cables transmitting the data may eliminate the requirement for Periodic Visual Inspections (PVIs) of the hardened raceway and enables the EMT or metallic conduit carrying the network cabling to be installed hidden above the ceilings or below a raised floor, resulting in lower operational costs, increased security, improved building aesthetics, and enhanced scalability of the network. In certain cases, the EMT can even be eliminated by using Interlocking Armored Optical Cables that are protected with INTERCEPTOR, resulting in even more dramatic savings in labor and material.

As a plug-and-play device, INTERCEPTOR can be used for new construction, as well as for existing cable infrastructure. Since 2003, INTERCEPTOR has been leveraged in support of numerous projects within the DOD, Department of Justice, Department of Homeland Security, and the intelligence communities, and its use is rapidly increasing across all government sectors.



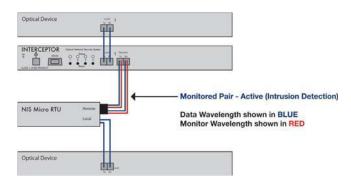
INTERCEPTOR monitors two or more dark (spare, unused) fibers within the cables carrying the secure traffic. This turns the entire cable into a sensor, enabling the INTERCEPTOR to detect handling that occurs as a result of an intrusion attempt or other unauthorized access. Using patented hub and spoke technology, a single INTERCEPTOR can monitor up to four continuous optical circuits in only a single rack space, providing protection for multiple remote buildings or as many as 48 end-user drops. (See Design Guide, chapter 4).



### How INTERCEPTOR Plus Works

When there are no dark fibers available, the INTERCEPTOR Plus™ model can be used to monitor active (live, data-transmitting) fibers. INTERCEPTOR Plus is only cost-effective when used for point-to-point applications; for instance, to protect homerun cables from a switch to an end-user drop, or trunk cables providing uplinks to zone boxes or remote buildings. A Remote Termination Unit (RTU) is required for each pair of fibers used for monitoring.

Point-to-multi-point architectures, such as hub and spoke, are possible to provide protection for as many as 12 end-user drops but require additional equipment to implement. For these applications, the INTERCEPTOR model is recommended. (See Design Guide, chapter 4).



NOTE: Contact your local CSC Representative for more information.





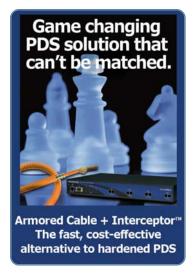
### $INTERCEPTOR^{{}^{\scriptscriptstyle{TM}}}\ Optical\ Network\ Security\ System$

### No False Alarms





We Bring Security To Light™



### Eliminate Metallic Raceway

Standard interlocking armored cable (such as that available from CSC) alarmed by the INTERCEPTOR can be used to eliminate the need for rigid metallic conduit or engineered raceway systems. The interlocking armored cable can be installed using standard cable conveyance hardware (j-hooks or cable D-rings) attached directly or suspended to the structure — drastically simplifying and reducing the cost of installation and improving building aesthetics.

This policy applies across all Air Force and Air National Guard facilities. For Army and Navy deployments, an armored cable and INTERCEPTOR deployment must be approved by the corresponding CTTA, as with all PDS projects. (See Design Guide, chapter 4).

### Today's Security Challenges Solved By INTERCEPTOR

### **Demand for Secure Network Connections**

While only a few years ago just a few connections might have been required in a building, many of today's government and military facilities demand thousands of secure connections. The legacy methods of network security (i.e., hardened carrier, encryption) are costly and present operational challenges when deployed in such dense numbers.

### **BRAC and MILCON New Construction**

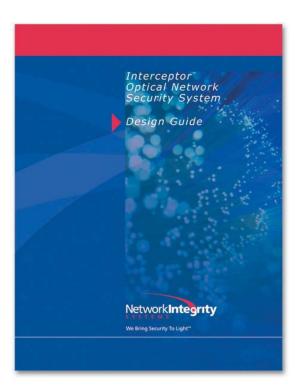
Many BRAC projects, originally designed with under-floor cabling, are now in the construction phase and requiring a greater number of secure network cable pathways than were originally planned. The challenge is to ensure accreditation of the classified network(s) without delaying BRAC construction for months due to re-design, costing the military in change orders and penalties.

### Non-Compliant Cable Systems

With the growing demand for secure networks, many cable systems that were originally constructed without a PDS are now operating under conditional Authority to Operate (ATO). Due to the increased importance of C4 networks and the modern threats against them, maintaining the security and availability of these networks is essential — which is why many historical waivers for cable systems are being rescinded or scheduled to expire. In many cases, the options for bringing network security into compliance present a choice between the use of encryption or making significant changes to the cable infrastructure and pathways in order to construct a traditional PDS.

### **Building Aesthetics**

Traditional EMT and other forms of metallic raceway used for PDS must be installed on walls to be accessible for the required inspections. Especially in new construction where building aesthetics are a consideration, facility managers are increasingly seeking ways to conceal or altogether eliminate unsightly conduit.



SEE INTERCEPTOR DESIGN GUIDE FOR MORE DETAILS www.gocsc.com/NISdesignguide





### INTERCEPTOR™ Optical Network Security System Family of Products

The INTERCEPTOR™ is an alarmed carrier Protective Distribution System (PDS) fully compliant with NSTISSI 7003 and the corresponding implementation guidelines of the various agencies and services. Unlike legacy alarm carrier systems that utilize an external, special sensing fiber to monitor the cable pathway for acoustic vibrations, INTERCEPTOR monitors fibers within the cable being protected, turning the entire cable into a sensor enabling the INTERCEPTOR to detect handling occurring as a result of an intrusion attempt or other unauthorized access. INTERCEPTOR has the unique ability to learn the optical characteristics of the network and discern between benign events and true causes for concern. These differences result in fail-safe, nuisance-free monitoring, and the ability to scale protection to match the level of classification and/or threats to the network.



### Foaturos

- Intrinsic Fiber Monitoring™ monitors a cable using fibers within the cable
- · Operates on active or dark fibers
- Protects links to multiple end-user buildings or up to 48 drops in one rack space (1U)
- Reports intrusions via: Dry-Contacts, Email/text page, SNMP
- Smart Filtering™ technology "auto-configures" to eliminate false alarms

### **Benefits**

- Lowest PDS deployment cost and complexity eliminates the high costs of rigid metallic raceway, as well as the ongoing human visual inspections
- Unparalleled protection and scalability because INTERCEPTOR monitors the data cables themselves, pre-existing cables can be upgraded to carry secure traffic without constructing a metallic conduit system
- Unlimited bandwidth INTERCEPTOR does not affect the network data
- Enhanced security and aesthetics with INTERCEPTOR's 24/7 monitoring, the inspections are always performed, and cables can be installed out of sight and away from threats
- Elimination of false alarms Smart Filtering™ technology filters out normal activity; benign events are ignored

### INTERCEPTOR™ Optical Network Security System for Dark Fiber Monitoring

The INTERCEPTOR™ monitors two or more dark (spare, unused) fibers within the cables carrying the secure traffic. A single INTERCEPTOR can monitor up to four continuous optical circuits in only a single rack space, providing protection for multiple remote buildings or as many as 48 end-user drops.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947554	8000-1-D-M5	INTERCEPTOR, 1-Port, Dark, Multimode, 50µ
947559	8000-2-D-M5	INTERCEPTOR, 2-Port, Dark, Multimode, 50µ
885200	8000-4-D-M5	INTERCEPTOR, 4-Port, Dark, Multimode, 50µ
947555	8000-1-D-M6	INTERCEPTOR, 1-Port, Dark, Multimode, 62.5µ
881568	8000-2-D-M6	INTERCEPTOR, 2-Port, Dark, Multimode, 62.5µ
947562	8000-4-D-M6	INTERCEPTOR, 4-Port, Dark, Multimode, 62.5µ
947556	8000-1-D-S9	INTERCEPTOR, 1-Port, Dark, Singlemode
881570	8000-2-D-S9	INTERCEPTOR, 2-Port, Dark, Singlemode
941170	8000-4-D-S9	INTERCEPTOR, 4-Port, Dark, Singlemode



NOTE: Contact your local CSC Representative for hybrid configurations.

INTERCEPTOR with optical connections in the rear are available upon request.

### INTERCEPTOR+Plus™ Optical Network Security System for Active and Dark Fiber Monitoring

The INTERCEPTOR+Plus™ monitors two or more active (live, data transmitting) fibers within the cables carrying the secure traffic and is most cost-effective when used for point-to-point applications; for instance, to protect homerun cables from a switch to an end-user drop, or trunk cables providing uplinks to zone-boxes or remote buildings. A Remote Termination Unit (RTU) is required for each pair of fibers used for monitoring. Point-to-multipoint architectures such as hub and spoke are possible, providing protection for as many as 12 end-user drops, but require additional equipment to implement. For these applications, the INTERCEPTOR model is recommended.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
798721	8000-1-U-M5-4S	Interceptor Plus, 1-Port, Universal, Multimode, 50µ
947560	8000-2-U-M5-4S	Interceptor Plus, 2-Port, Universal, Multimode, 50µ
947563	8000-4-U-M5-4S	Interceptor Plus, 4-Port, Universal, Multimode, 50µ
947557	8000-1-U-M6-3S	Interceptor Plus, 1-Port, Universal, Multimode, 62.5µ
798720	8000-2-U-M6-3S	Interceptor Plus, 2-Port, Universal, Multimode, 62.5µ
857400	8000-4-U-M6-3S	Interceptor Plus, 4-Port, Universal, Multimode, 62.5µ
947558	8000-1-U-S9-3L	Interceptor Plus, 1-Port, Universal, Singlemode
947561	8000-2-U-S9-3L	Interceptor Plus, 2-Port, Universal, Singlemode
947564	8000-4-U-S9-3L	Interceptor Plus, 4-Port, Universal, Singlemode



NOTE: Contact your local CSC Representative for hybrid configurations.





## INTERCEPTOR™ Remote Termination Unit (RTU) for Rack Mounted Applications

The Interceptor Remote Termination Unit is used in combination with an Interceptor+Plus™ Optical Network Security System to monitor active fibers. The RTU is positioned at the far end of the cable being monitored and returns the monitoring signal to the Interceptor+Plus.

# Network Inte We Bring Security To Light"

Supports up to four Interceptor+Plus monitoring ports in a single rack unit space

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947569	RTU-R-1-M5-4S	Rack Mount RTU, 1-Port, Multimode, 50µ
947574	RTU-R-2-M5-4S	Rack Mount RTU, 2-Port, Multimode, 50µ
947577	RTU-R-4-M5-4S	Rack Mount RTU, 4-Port, Multimode, 50µ
947572	RTU-R-1-M6-3S	Rack Mount RTU, 1-Port, Multimode, 62.5µ
947575	RTU-R-2-M6-3S	Rack Mount RTU, 2-Port, Multimode, 62.5µ
947578	RTU-R-4-M6-3S	Rack Mount RTU, 4-Port, Multimode, 62.5µ
947573	RTU-R-1-S9-3L	Rack Mount RTU, 1-Port, Singlemode
947576	RTU-R-2-S9-3L	Rack Mount RTU, 2-Port, Singlemode
947579	RTU-R-4-S9-3L	Rack Mount RTU, 4-Port, Singlemode



## INTERCEPTOR™ Micro Remote Termination Unit (Micro-RTU)

The Interceptor Micro Remote Termination Unit is used in combination with an Interceptor+Plus™ Optical Network Security System to monitor active fibers. The Micro-RTU is positioned at the far end of the cable being monitored and returns the monitoring signal to the Interceptor+Plus. Its compact size enables mounting in a variety of locations — inside a zone box, patch panel, connector module housing, or within a secure enclosure. Includes mounting kit.





## INTERCEPTOR™ Rack Mount Alarm Unit (RAU)

The Interceptor Rack Mount Alarm Unit is a rack-mounted accessory that provides an audible and visual indication that the Interceptor is in an alarm condition.



CSC PART NO.	MFR. PART NO.	DESCRIPTION
947565	RAU-R	Remote Alarm Unit, Rack Mounted





## Holocom® and INTERCEPTOR™ Hybrid PDS Solution

Holocom and Network Integrity Systems have joined forces to equip classified networks with a state-of-the-art hybrid PDS — combining engineered raceway for easy moves, adds, and changes with 24/7 alarmed monitoring that may eliminate the requirement of periodic visual inspections.





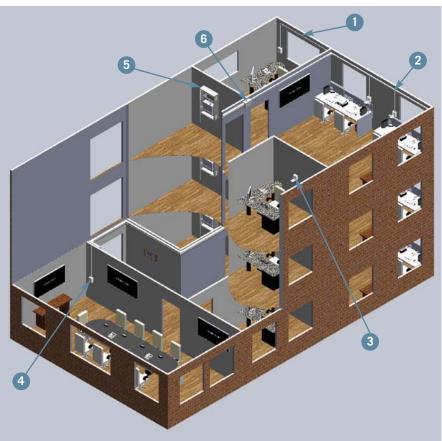
Holocom PDS, the leading modular secure raceway system, encloses and protects secure network connections and cables, creating seamless distribution pathways for classified information. Unlike the cumbersome and labor-intensive traditional steel conduit method of pulling SIPRNet cables, Holocom PDS mounts quickly and easily. By making future moves, adds, and changes (MACs) fast, simple and cost effective, Holocom PDS achieves significant savings on life cycle management costs.

Interceptor is the leading alarmed carrier PDS from Network Integrity Systems that provides fail-safe, nuisance-free monitoring of classified networks. Optimized to detect tampering or intrusions into fiber optic network cabling, Interceptor provides continuous monitoring that may eliminate the burden of periodic visual inspections (PVIs). With Interceptor on guard, network security is enhanced to unprecedented levels. As a plug-and-play device, it can be added to networks as requirements become more stringent.

Bringing together the Holocom and Interceptor PDS technologies results in a powerful end-to-end solution for ensuring defense in depth for classified government and military networks.

# Holocom® and INTERCEPTOR™ — combining the best of both technologies for inside building network security





Contact your local CSC Representative for ordering information.

## As illustrated in this diagram:

- 1 2 Holocom PDS delivers Secure Mini Dukt™ to the individual user. As an added option that may eliminate PVIs and to further enhance security, Interceptor can alarm the cables within the carrier.
  - 3 Holocom PDS back-to-back drops reduce PDS use and cost.
  - The small profile of Holocom PDS integrates with office aesthetics.
  - 5 Interceptor protects the vertical cable runs from floor to floor where the required PVIs are difficult or impossible to perform.
  - 6 Holocom and Interceptor protect the horizontal cable runs — for instance from comm room to zone box — and may eliminate the required PVIs, reducing the burden of inspecting areas where the PDS cannot be seen.

For more information on Holocom products, see pages 80–83. For more information on the Interceptor, see pages 104–107.

Holocom and Secure Mini Dukt are trademarks of Holocom, Inc. Interceptor is a trademark of Network Integrity Systems. Both Holocom and Interceptor are made in the U.S.A.





# INTERCEPTOR™ and Armored Cable, the new PDS

A fully compliant PDS Solution, less is more in this case.



A simple solution to a complex problem. Please contact your CSC Representative for more information.



We Bring Security To Light™

Network Integrity Systems manufactures the INTERCEPTOR™ Optical Network Security System, which monitors optical cables carrying classified transmissions.



Tyco Electronics AMP NETCONNECT interlocking armor optical fiber cables provide a robust metallic protective barrier around common constructions of optical fiber cable.





# Advanced Network Infrastructure Security: INTERCEPTOR™ and AMPTRAC™





We Bring Security To Light

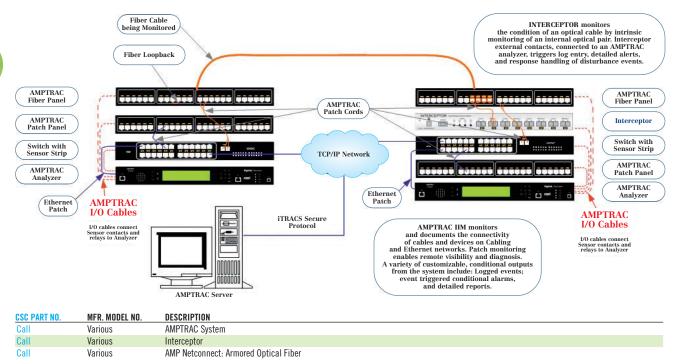
Tyco Electronics and Network Integrity Systems come together to deliver an unprecedented level of security for classified government networks.

#### **Features**

- · Secures classified networks end-to-end
- . Monitors the condition of an optical fiber by intrinsic monitoring of an internal optical pair of fibers
- Provides maximum security and control of IT infrastructures
- · Monitors 'dark' and 'active' fibers, device movement, and patch connections without interrupting service
- Simple and reliable 2-wire integration between AMPTRAC Analyzer and Interceptor

#### **Benefits**

- · Developed with Department of Defense guidance to information assurance and IT security applications
- · Belt and suspender security monitors changes to the connectivity and condition of secure fiber optic networks
- · Network is protected from connector tip to connector tip or device to device when they are present
- · Superior alert and notification routing through filterable specifics and affected circuits within the monitored fiber cable
- Associated site plans show cable routes and termination points for expeditious restoration/review



NOTE: System and component part numbers may vary by site and requirements. System designs should reference manufacturer recommendations and product specifications.





## Introducing SafeGuard + INTERCEPTOR™ = Network-Centric Intrusion Protection (IPS 2.0)





We Bring Security To Light"

Trusted Systems and Network Integrity Systems have joined forces to create IPS 2.0 — a network-centric security solution enabling remote control and rapid deployment of network infrastructure.

itself is secured within the confines of the IPS container to eliminate tampering or compromise.

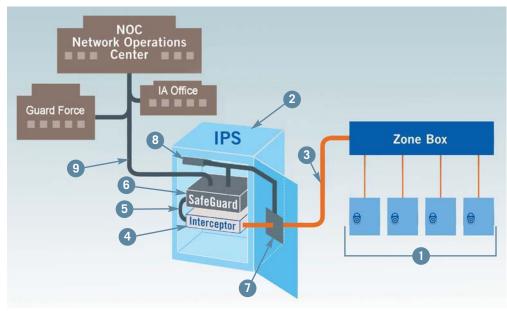
Trusted Systems, the innovator of the IPS container, and Network Integrity Systems, the leader in alarmed carrier PDS, are combining their technologies to create IPS 2.0 — a comprehensive end-to-end intrusion protection system for government and military classified networks. By combining the advantages of Trusted Systems' SafeGuard™ IP-addressable monitoring and control system with Network Integrity Systems' Interceptor™ plug-and-play alarmed carrier PDS, network operators now have remote control of the safe and its contents, as well as the network infrastructure. SafeGuard, when integrated with the "SCIF in a Box™" modularity of the IPS container, adds an early warning system by monitoring lock and door status. Alarms trigger an immediate countermeasure by cutting off power to critical equipment, switches, routers, servers and PCs, as well as "zeroizing" encryption devices. SafeGuard also monitors Interceptor's alarm outputs to secure all connected cables to the IPS container. The Interceptor

With Interceptor's fail-safe, no-false-alarm monitoring of optical cables within the network, the alarm interface to SafeGuard becomes an integral part of the IP-addressable link to provide network infrastructure security at an unprecedented level.

The most significant impact of IPS 2.0 is the real-time aspect of monitoring and controlling physical security of the network. Each critical element of the IPS container and the entire length of the cable plant are under constant surveillance with the ability to instantly respond to any alarm. The human element is minimized, not relying on periodic inspections or OPSEC measures to ensure compliance. Instead of auditing loss or damage, you are now able to prevent it in the first place. This establishes a proactive versus reactive solution.

With SafeGuard and Interceptor working together, a powerful preventive synergistic tool becomes an embedded component of the network, a true network-centric rather than facility centric solution.

## SafeGuard<sup>™</sup> and INTERCEPTOR<sup>™</sup> — a true network-centric security solution



Contact your local CSC Representative for ordering information.



- End User Drops
- **IPS** Container
- Fiber Optic Cable
- Interceptor Optical Network Security System
- Alarm Output Connection to SafeGuard
- SafeGuard Smart PDU Controller
- Combination Lock Sensors
- Door Position Sensor
- IP Addressable **Network Connection**

For more information on Trusted Systems products, see pages 112-113. For more information on the Interceptor, see pages 104-107. SafeGuard is a trademark of Trusted Systems. Interceptor is a trademark of Network Integrity Systems. Both Trusted Systems and Interceptor are made in the U.S.A.





**TRUSTED** 

SYSTEMS

## Trusted Systems IPS Security Containers For SIPRNET/JWICS Deployments:

## What is an Information Processing System (IPS) Security Container?

An IPS Security Container is an on-line armored computer cabinet derived from a GSA Class 5 off-line storage container, but under its own Federal Specification carrying a distinct blue GSA approval label. IPS Containers are constructed specifically for the protection of classified communications, encryption, and computing equipment for stand-alone or network applications. They allow closed-door, unattended, 24/7 operation of network switches, routers, servers, workstations, and Type 1 encryption devices that process classified information in any combination.

## Why use a Trusted Systems IPS Container?

By using a Trusted Systems IPS Container in a deployment, the owning agency saves substantial cost, time, and complexity by eliminating the need to create a separate SCIF or secured equipment room. Furthermore, a SCIF is permanent and fixed as to size and location. A Trusted Systems IPS Container, on the other hand, is a fully authorized CAA alternative, a "SCIF in a Box™" solution self-sufficient, modular, scalable, and most importantly, transportable — a solution that retains its value without growing obsolete. This offers a high degree of flexibility for network deployments, upgrades, or reconfigurations due to changes in architecture. Trusted Systems IPS Containers are more than just storage containers; they are an integrated security solution tailored to protect classified network applications for SIPRNET or JWICS nodes, wireless access points, client workstations, DRSN or VOSIP circuits, VTC connections, server farms, blade clusters, communications closets, and laptop repositories. Along with physical protection of information assets, they provide environmental protection for equipment with a variety of climate control, rack mounting, and cable connectivity options. In these days with emphasis on joint forces integration and BRAC relocations, this modularity of infrastructure security provides great latitude when relocating networks at minimal cost in a shorter period of time.





The Trusted Systems family of IPS Containers brings the network to you instead of you going to the network; and you configure the container specifically to fit the application instead of the application being forced to fit the container — the only ones on the market that provide this unparalleled "SCIF in a Box™" configuration flexibility. Plus:

- GSA/NSA approved Class 5 protection up to TS/SCI levels
- Closed-door, 24/7, unattended operation
- · Maintenance- and contaminant-free design to ensure equipment reliability
- · Low-noise cooling solutions for manned office environments
- Self-contained, self-controlled, transportable
- Cost-effective CAA alternative to costly security upgrades, facility modifications, and SCIF construction

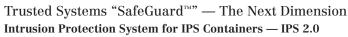


Contact your local CSC Representative for ordering information.









TRUSTED SYSTEMS

SafeGuard elevates the IPS Container into the next dimension by transforming it from a facility centric standalone solution to a network centric layer one security appliance. The first of its kind, SafeGuard incorporates intrusion detection and protection into the physical shield of the IPS Container itself: a continuous, real-time, IP addressable remote monitoring and alarming of the IPS lock and door. Attention now focuses on the major vulnerability to compromise or unauthorized access, the insider threat. The insider already has access to the room; it's the container that needs monitoring. This shield can be expanded to the entire network cable plant when the alarm output of Network Integrity's INTERCEPTOR alarmed carrier PDS solution is interfaced to SafeGuard. This then secures the entire network end-to-end, container and cable, against insider and outsider threats — integrated into a single IP addressable link. But, what do you do with an acknowledged threat once alarmed? Traditional IDS alarms are not designed to respond, only alert. SafeGuard responds, with PROACTIVE INTRUSION PROTECTION to thwart unauthorized access. Through the same IP addressable link, power to critical devices, such as switches, routers, or servers, can be instantly and selectively cut off, preventing connectivity or compromise of traffic. Even more, TACLANEs can be remotely "zeroized" when coupled with Safeguard.

Now you have true interactive intrusion protection for the entire network end-to-end, monitored and controlled from anywhere in the world. This is called "IPS 2.0". It has been JITC tested and approved for use on government classified networks. Multiple IPSs can be monitored and controlled centrally by use of a dedicated server option with logging and trend analysis functions available for enterprise-wide management.







Back

#### SafeGuard™ Functionality

SafeGuard offers network operators and users a remote, IP addressable status monitor, alarm, and control system based on a rack mounted intelligent PDU with embedded door and lock sensors built into the IPS Container. It is tamper-proof and does not interfere with the operation or integrity of the combination lock or the door.

- MONITORS To monitor IPS access, SafeGuard senses door position, lock status, and spin dial activity. Equipment operating integrity is monitored by sensing temperature inside and out, along with power consumption. For external threats of forced entry, there is a vibration sensor. When interfaced to INTERCEPTOR, PDS intrusion alarm status is also monitored
- ALARMS SNMP traps are generated for interfacing to network performance monitoring systems, such as CA's Spectrum, HP Open View, and Solar Winds Orion. Emails or text message alerts can also be initiated upon issuance of an alarm to the appropriate security personnel or first responders
- **CONTROLS** In response to alarms or other programmed activities, individual power receptacles can be turned on and off by remote command. This allows power up sequencing or remote rebooting of equipment. By monitoring the combination lock and door status during normal operations, proper locking procedures can be ensured and corrected quickly if improper
- **PROTECTS** On/off commands for individual receptacles ensure an immediate proactive emergency shutdown of equipment. This also applies to remote "zeroizing" of TACLANE encryption devices. Responses can be generated as a result of an unauthorized intrusion, disruption of power, equipment failure, or overheating due to HVAC failures. Responses can be preprogrammed if necessary





## Secure Link™

Secure Link™ is the ideal Alarmed Carrier PDS (Protective Distribution System) solution for protecting outside plant (OSP). Up to 25 linear miles can be monitored to detect physical attempts to penetrate a cable, conduit, or raceway. Secure Link™ instantly and reliably reports the precise geospatial coordinates of intrusion events. Multiple Secure Link™ controllers provide seamless monitoring of outside plant ranging up to hundreds of miles. Using existing singlemode (SM) fiber optic strands, Secure Link™ is an extremely cost-effective alternative to visual inspections, encryption, or hardened conduits.



FFT Secure Link\*

#### **Features**

- A single Secure Link controller protects up to 25 linear miles
- Multiple controllers can be combined to protect an entire Metro Area Network
- Extremely low nuisance/false alarms due to 100% fiber optic design
- ARaD (Advanced Recognition and Discrimination) signal analysis algorithms
- Integrates with higher-level command and control systems

- Affordable eliminates need for encryption, hardened conduits, or visual inspections
- Efficient uses existing fiber optic strands or wavelengths
- Effective detects intrusions before cable is accessed
- Precise reports and logs precise GPS coordinates of intrusion
- Reliable field proven for oil/gas pipelines, critical infrastructure perimeters, and sensitive data links

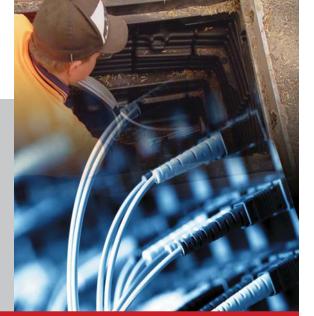






## **The ideal Alarm Carrier Protective Distribution System solution for Protecting Outside Plant (OSP).**

- Single Controller protects up to 25 linear miles
- Reports precise GPS coordinates of intrusion
- Extremely low Nuisance/False alarms due to 100% Fiber Optic Design
- Integrates with high-level Command/Control Systems









## Secure Pipe™

Secure Pipe™ is the most proven early warning pipeline security monitoring system available, detecting Third Party Interference (TPI) anywhere along thousands of miles of buried pipeline, in real-time, before actual pipeline damage occurs, protecting valuable assets and resources.

Secure Pipe™ uses a fiber optic cable installed above the pipeline as the sensor, detecting and pinpointing the location of an intrusion or event to within 150 yards regardless of pipeline length.



#### **Features**

- A single system protects up to 25 miles
- Multiple systems networked to seamlessly monitor longer distances
- Locate intrusions to 150 yards
- No electronics or power in the field
- · Intrinsically safe

#### **Benefits**

- High performance pinpoints the location of TPI or illegal activities on high risk oil, gas, chemical, or water pipelines
- Advanced Low Nuisance Alarm Rate due to the intelligent event discrimination and analysis utilized
- Precision know where to dispatch security or maintenance staff to ensure rapid response
- Efficient real-time early warning of TPI activities on pipelines and alerts before damage occurs
- Effective low total cost of ownership

CSC PART NO.	MFR. PART NO.	DESCRIPTION
948694	P301	Secure Pipe Locator Controller
948690	X822	FFT CAMS 3 Enterprise Edition (one client plus one server)
948691	A045	Microstrain/Locator USOP — Start Sensor
948692	A041	Microstrain/Locator USOP — End Sensor
948693	A072	3m SCA Duplex Patch Cords



## Secure Fence<sup>™</sup>

Secure Fence™, a fiber optic perimeter security detection and location system, is ideal for long-range perimeter protection. The system pinpoints and locates intrusions to within 25 yards or better along perimeter fences up to 50 miles long, and delivers a detection rate better than 95%. Multiple systems can be networked to monitor longer distances, such as country borders.

The Secure Fence™ system is easily installed with a single pass of FFT's low-cost fiber optic sensor cable attached to a fence to detect intrusion attempts. It requires no power, electronics, or communications to be installed in the field. A powerful head-end unit sends a light signal down a fiber optic cable attached to the fence, and the returned light signals are then analyzed and monitored for any disturbances.

#### Features

- High performance pinpoints location of an event or intrusion to within 25 yards or better
- Artificial Intelligence Technology patented technology that clearly discriminates between real events and nuisance alarms
- Longer range single controller protects up to 50 miles or multiple controllers can be networked to monitor longer distances
- Reliable and cost-effective lowest total cost of ownership, simple installation, no maintenance or power in the field
- Rugged durability intrinsically safe and immune to EMI, RFI, and all weather and climate conditions

## **Benefits**

- Advanced military-derived signal processing to eliminate environmental nuisance alarms
- Precision real-time notification and a highly efficient response when a security breach does occur
- · Efficient fiber optics used for detection and communication, virtually no maintenance for field components
- · Versatile interfaces to virtually any security system, CCTV, lighting, gates, email, and external devices
- Reliable field-proven high-performance perimeter protection for high-value assets and critical infrastructures worldwide

CSC PART NO.	MFR. PART NO.	DESCRIPTION
948697	P226	Secure Fence Locator Controller
948690	X822	FFT CAMS 3 Enterprise Edition (one client plus one server)
948691	A045	Microstrain/Locator USOP — Start Sensor
948692	A041	Microstrain/Locator USOP — End Sensor
948693	A072	3m SCA Duplex Patch Cords









## SecureSwitch® — NIAP® Validated Network Security Switches

Market Central® manufacturers SecureSwitch® products for both fiber optic and copper twisted-pair networks to control access to multiple, disparate networks connections that possess varying levels of sensitive or classified information.



## SecureSwitch® Fiber Optic A/B/C Switch (Revision A)

Manages a full duplex fiber optic connection to up to three networks of different security classifications and also serves other applications with mixed security levels. Precise micromirror optical movements combine the security of an all-optical data path and reliability of rugged electromechanical operation, eliminating the vulnerabilities of complex electronics and hybrid fiber optic switches.







- CCEVS certified at EAL4+
- Full Duplex optical switching of the data paths handles all data rates, formats, and protocols
- No setup or software; maintains communications even when power is lost or removed
- Tabletop and rack-mount styles with ST or SC connectors

CSC PART NO.	MFR. PART NO.	DESCRIPTION
948625	5101180	Secure Switch Fiber Optic A/B/C Switch (Revision A) SC Connectors — Desktop
948627	5101182	Secure Switch Fiber Optic A/B/C Switch (Revision A) ST Connectors — Desktop
948631	5101183	Secure Switch Fiber Optic A/B/C Switch (Revision A) SC Connectors — Rackmount
948632	5101184	Secure Switch Fiber Optic A/B/C Switch (Revision A) ST Connectors — Rackmount

Market Central products are highly customized based on end-user applications. Contact your local CSC Representative for ordering information.

## SecureSwitch® Model 5000600 Dual Network Switch

Manages connections to two 10/100 Base-T networks of different security classifications. Two separate, highly shielded On/Off network switches are mechanically coupled to break one connection before making the other by turning either one of the two control knobs. This switch is used in multiple classification areas and network applications up to and including Top Secret classification.

- · CCEVS certified at EAL4
- No setup is required





CSC PART NO.	MFR. PART NO.	DESCRIPTION
948633	5000600	Secure Switch Model 5000600 Dual Network Switch (EAL4





## General Dynamics Sectéra® vIPer™ Universal Secure Phone

The Sectéra® vIPer™ Universal Secure Phone provides the latest technology for both non-secure and secure, end-to-end Voice over IP and analog networks, eliminating the need for multiple desktop phones. SCIP and Crypto Modernization compliant, the vIPer phone is the only VoIP phone certified to protect information classified Top Secret/SCI and below including Sensitive But Unclassified (SBU). The vIPer phone supports multiple key-sets for U.S. government sponsored interoperability (e.g., NATO and coalition).

#### **Features**

- Analog (PSTN) and VolP (Cisco Skinny Call Control Protocol [SCCP] or Session Initiation Protocol [SIP]) connectivity
- Simple switch between Analog (PSTN) and VolP Networks via the easy-to-use menu
- · NSA, JITC, and TSG Certified
- Ideal STU/STE replacement trade-in options available
- High-quality voice / low SATCOM latency
- Integrated security for top secret/SCI and below (no Fortezza card or CIK required)
- · Secure data and fax transfer
- · Free software upgrades available online
- · Precedence and preemption

#### Cost-Effective, Modern Secure Phone

The Sectéra vIPer phone provides high-quality, clear voice and data communications for VoIP and analog networks in one device. Unlike other government secure phones, the vIPer phone is a single desktop phone with integrated security and PIN-based access control. eliminating the cost and labor associated with accounting for additional crypto cards.

#### Easy to Use and Manage

Simple to install, the vIPer can be set up out of the box within two minutes. The large, easy-to-read display is intuitive and user-friendly as is the web-based management tool. The vIPer phone can be managed by GEM X™ Encryptor Manager which is also used to manage the widely deployed TACLANE® family of encryptors.

#### **Ideal STU Replacement**

The vIPer phone provides a smooth transition as your networks evolve from analog (PSTN) to VoIP. Simply switch between networks via the easy-to-use menu. STU/STE trade-in options are also available for users to upgrade to a more flexible, modern secure phone.

#### **Customer Investment Protection Program**

Invest in a phone with the latest technology, not a phone that retrofits older technology. The vIPer phone provides integrated security, capability for use on multiple networks, free software upgrades and trade-in programs for legacy phones. The vIPer phone is interoperable with all Government secure phones, DoD networks and devices (JITC certified), and commercial IP Phones (Avaya and Cisco).





#### Easy to Use

- · LCD display with backlight
- · Fast secure call set-up
- Web-based GEM X<sup>™</sup> administration
- Fast, touch-free software upgrades for non-secure call features
- Supports DHCP for fast set-up

## State-of-the-Art Technology

- Secure data transfer to other SCIP-capable devices (key material, secure fax)
- Commercial open standards
- · Powered over Ethernet or AC
- MIL-STD-810F for temperature, humidity, vibration, shock, and altitude







## General Dynamics Sectéra® vIPer™ Universal Secure Phone

**GENERAL DYNAMICS** C4 Systems

The Sectéra® vIPer™ Universal Secure Phone provides the latest technology for both non-secure and secure, end-to-end Voice over IP and analog networks, eliminating the need for multiple desktop phones.

#### **Features**

- Analog (PSTN) and VoIP (Cisco Skinny Call Control Protocol [SCCP] or Session Initiation Protocol [SIP]) connectivity
- Simple switch between analog (PSTN) and VoIP networks via the easy-to-use menu
- · NSA, JITC, and TSG Certified
- Ideal STU/STE replacement trade-in options available
- High-quality voice/low SATCOM latency
- Integrated security for top secret/SCI and below (no Fortezza card or CIK required)
- Secure data and fax transfer
- Free software upgrades available online
- Precedence and preemption

#### Benefits

- Secure end-to-end voice and data transfer
- Ideal STU replacement; trade-in options available
- CryptoMod compliant
- Easy to use and maintain



Contact your local CSC Representative for ordering information.

## Sectéra® vIPer™ Universal Secure Phone: Unparalleled Flexibility and Scalability

Compared to traditional Voice over SIPRNET (VOSIP) deployments, the Sectéra® vIPer™ Universal Secure Phone ensures end-to-end protection, provides interoperability with other SCIP devices on ANY network, and supports BOTH secure Type I or Suite B calls as well as non-secure calls to the public switched telephony network. Sectéra® vIPer™ Universal Secure Phones also allow the security level be determined by each individual user/key — providing increased scalability over traditional point-to-point VOSIP deployments where the security level of the network dictates the use of the phone.







# **Industry-Leading Manufacturers...**







# The solutions featured on pages 120–139 include:

- Integrated IP Solutions
- Enterprise Ready
- Indoor/Outdoor
- Harsh Environment
- Low-Light Applications

# Physical Security

Physical Security	
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www.gocsc.com/secureIT





## **Integrated Physical and Network Security Solutions:**



## **Security Convergence**

Physical Security products and solutions are playing an increasingly crucial role for Information Assurance and network security from a defense-in-depth perspective. From controlling who has access to sensitive information and critical network equipment, to visually monitoring and recording who enters a classified workcenter. Physical security is a key enabler for information security.

Communications Supply Corporation has launched an extensive expansion to become a leading supplier of physical security products and solutions, including access control, video surveillance, fire and life safety, and mass notification. While this business was initially focused on low-voltage, analog, and IP security networks and applications, the growing focus on protecting critical information and resources has created tremendous synergies with the Secure(it) program. In fact, several government initiatives are driving increased convergence between physical and IT security — such as Homeland Security Presidential Directive 12 (HSPD-12), which is mandating the convergence and integration of physical and logical control systems that provide cross-boundary access to facilities and workcenters.

As the chart below illustrates, both Physical Security and Network Security play a key role in protecting sensitive information and critical resources and facilities. As the sensitivity of information increases, so does the focus and extent of BOTH physical and network security solutions:



## **Physical** Security

**Network Infrastructure & Physical Security Protection Layers**  Network Security

Ensure Complete Isolation

Provide Maximum **Detection** 

Restrict & Monitor Access

> Focus on Detection

C4ISR Networks & Facilities

SCIF facilities & SIPRNET/JWICS networks

Critical Infrastructures SCADA or Infrastructure control networks

> Sensitive Information HIPPA, PCI, or PII compliance

**Enterprise Networks** 

Protect & Defend the Network

Ensure Integrity & Availability

Separate & Protect Sensitive Data

Minimize Network Exposure





CSC's breadth of Physical Security products and solutions enable our customers and partners to cost-effectively design and deploy physical security solutions for a wide range of government and commercial applications, such as:

- Facility Security
- Maritime/Port Security
- Transportation Security
- Continuity of Operations
- Critical Infrastructure Protection
- Perimeter Security
- Intrusion Detection
- · Security Controls

- Asset Protection
- Biometric Security
- Mass Notification

## CSC's portfolio of Physical Security products and solutions include the following:

#### **Access Control**

- Controllers
- Readers
- Cards/Tokens
- Magnetic Locks
- Electric Strikes
- Request to Exit
- Cable
- Power Supplies

#### Wireless

- Transmitters
- Receivers
- **Transceivers**
- Multipoint
- Antennas
- Base Stations
- Power Supplies
- Bridges
- Gateways
- Access Points
- Power Supplies
- Cable

#### Sound/Audio/Notification

- Speakers
- Amplifiers
- Microphones
- Voice Evacuation Systems
- Switchers
- Transmitters
- Touch Panels
- Screens
- Projectors
- Players
- Cable
- Power Supplies

## Surveillance/Video

- IP Cameras
- Network Video Recorders
- Video Management Software
- Analog Cameras
- Digital Video Recorders
- FTL Video Optimized Servers and Storage

## **Intercom Systems**

- Master Stations
- Sub Stations
- Video Stations
- Power Supplies
- Cable

## Fire & Life Safety

- **Control Panels**
- Pull Stations
- Horns/Speakers/Strobes
- Voice Evacuation Systems
- Cable
- Power Supplies



By integrating physical security and network infrastructure products, Secure(it) provides a cohesive and layered approach to network security which:

- Enables comprehensive yet cost-effective protection against the growing threats to sensitive information and critical infrastructures
- Reduces the cost and complexity of deployment for C4ISR networks and facilities

In order to capture the growing synergies between physical security and Information Assurance, CSC created the Secure(it) Protection Layers. These Layers provide a cost-effective and balanced approach for end users to implement the protection required based upon the sensitivity of their information or network and the potential cost or impact if compromised. The Secure(it) Protection Layers address requirements for the typical enterprise network (i.e. email, Internet traffic, etc.) to classified network or facility (classified info, SCIFs, etc).









# Physical Security **SOLUTIONS**

## For Today's Physical Security **NEEDS**

- Plug and Play Solutions Allow Easy On-Site Installation
- Real-Time Remote Viewing Means Security Officers Can See Inside, Even When They're Outside
- Behavioral Analytics and Instant Notification Translate to Reduced Labor Costs
- Unbundled Solutions Let You Pick & Choose Components

Communication Supply Corporation, a subsidiary of WESCO Distribution, Inc. (NYSE: WCC), has earned a nationwide position as one of the leading distributors of PHYSICAL SECURITY, Voice, Data, and Video infrastructure solutions.

Our vast capabilities range from unbiased product recommendations to customized services throughout any of our stocking locations in the U.S. What makes CSC unique is that we operate under a decentralized business model whereby local management teams call the shots. Personnel, inventory, operations, and pricing all fall within the local teams' responsibility. Thus, we eliminate "red tape" from regionalized or corporate-based directives

- Programmable Archieves Maximizes Storage Capacity
- Standards-Based Components Work With Existing Infrastructure
- Internet Protocol Allows Instant Notification, Remote Viewing of Live Events
- Pre-tested and Pre-Loaded Solutions Save on Installation Costs

that can negatively impact your operation. All of this translates into a higher level of credibility, accountability, and customer satisfaction.

CSC has assembled a world-class team of industry experts in support of PHYSICAL SECURITY applications. from technical support to supplier relations to some of the most well-educated sales professionals we speak your language and understand your operational concerns.

We're bringing a higher level of credibility, accountability, and customer satisfaction.



## Realtime Remote Viewing

IP (Internet Protocol) allows real time communication of events to security officials, administrators, executives, building operations, management pros and more. Emergency notifications can be sent via email, video capture pushed to PDA, or cell phone, and more.

## Plug and Play

CSC can pre-configure racks, cabinets, and nodes for ease of onsite deployment. Contractors simply plug and play.

## Pick & Choose Components

Components can be sourced as complete pre-configured solutions, or as stand-alone items. These include servers, structured cabling components, monitors, power supplies, cooling, cable management, environmental monitoring, network components, desks, and more.





## Preserve Existing Infrastructure

Works with a variety of cameras and cabling types, including some already in your current system.





Whether you are looking for a complete

# STATE-OF-THE-ART **BUNDLED SOLUTIONS**

or an upgrade to a legacy system or simply require a single IP camera CSC is there for you

## **VIDEO ANALYTICS**

Harness the power of technology to protect and secure your facility



## Programmable Viewing

View pre-defined surveillance sources allowing you to conserve drive capacity and eliminate unnecessary images.

# Reduce Labor Costs Intelligent video analytics allows for behavioral programming and ease of accessibility to decrease security man-hours while increasing security.

## Instant Notification

In the event of a security breach, company personnel can be notified via cell phone, PDAs, internet log-in and other communications devices. Real-time Viewing of live events is available on allowable devices from remote locations.

## Pre-tested Solutions

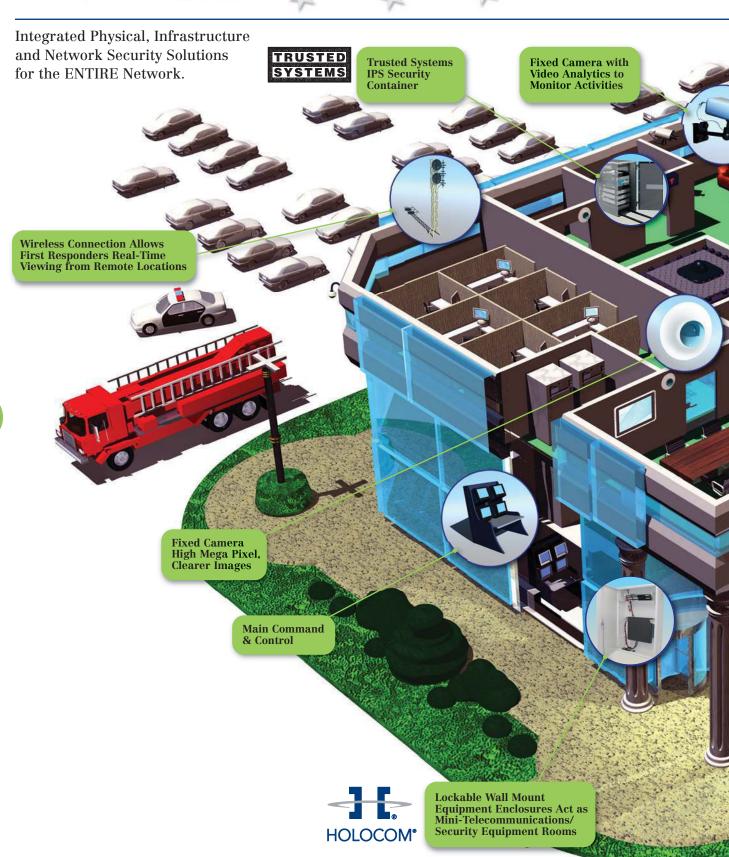
Prior to shipping, all components can be pre-loaded and pre-tested to save on installation costs and reduce down-time. Contractors simply

## Maximize Storage

View archived or live video at the touch of a button. Recordings are based on customizeable predetermined parameters such as time of day, motion sensitivity, privacy masking, and more. You draw















CSC works closely with the following manufacturers in providing cost-effective and integrated solutions for Physical Security projects and applications:































































































































































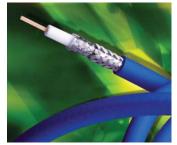








## **CCTV Coax Cables**





CSC PART NO.	MFR. PART NO.	DESCRIPTION
421865	5339B5 0101000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC F+60% ALB Black PVC 1,000' Reel
541939	5339B5 010U1000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC F+60% ALB Black PVC 1,000' Box
592598	5339Q5 0091000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC Quad Shield CM White PVC 1,000' Reel
593285	5339Q5 009U1000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC Quad Shield CM White PVC 1,000' Box
528550	5339Q5 0101000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC Quad Shield CM Black PVC 1,000' Reel
579871	5339Q5 010U1000	Aluminum Braid, Non-Plenum — RG-6 18 AWG Solid BC Quad Shield CM Black PVC 1,000' Box
511169	633938 877U1000	Aluminum Braid, Plenum — RG-6 18 AWG Solid BC F+90% ALB Natural 1,000' Box
508681	543945 0101000	Copper Braid, Non-Plenum — RG-59 20 AWG Solid BC 95% BCB CM CCTV Black PVC 1,000' Reel
511166	543945 010U1000	Copper Braid, Non-Plenum — RG-59 20 AWG Solid BC 95% BCB CM CCTV Black PVC 1,000' Box
585413	551945 010U1000	Copper Braid, Non-Plenum — RG-59 22 AWG Stranded BC 95% CU CM Black PVC 1,000' Box
516446	533945 0101000	Copper Braid, Non-Plenum — RG-6 18 AWG Solid BC 95% BCB CM Black PVC 1,000' Reel
416344	643948 8771000	Copper Braid, Plenum — RG-59 20 AWG Solid BC 95% BCB Natural 1,000' Reel
511168	643948 877U1000	Copper Braid, Plenum — RG-59 20 AWG Solid BC 95% BCB Natural 1,000' Box
506186	633948 8771000	Copper Braid, Plenum — RG-6 18 AWG Solid BC 95% BCB CMP Natural 1,000' Reel
483983	6339Q8 8771000	Copper Braid, Plenum — RG-6 18 AWG Solid BC Quad Shield Natural 1,000' Reel
422140	633938 8771000	Copper Braid, Plenum — RG-6 18 AWG Solid BC Duofoil + 60% Aluminum Braid

## CATV Coax & Twinax Cable — Belden Classics

CSC PART NO.	MFR. PART NO.	DESCRIPTION
301794	9116 010U1000	Non-Plenum — RG-6 18 AWG Solid CCS Foil+60% Alum Braid CM/CATV Black 1,000' Box
416430	9269 0101000	Non-Plenum — RG-62A/U 22 AWG Solid CCS 95% BCB CL2 Black 1,000' Reel
416445	9463 J221000	Non-Plenum — Twinax-Blue Hose® 78 ohm CM, CL2 Blue 1,000' Reel
477461	1189A 010U1000	Non-Plenum — RG-6 18 AWG Solid CCS Quad Shield CM DBS Black PVC 1,000' Box
593316	1829A 009U1000	Non-Plenum — RG-6 18 AWG Solid CCS F+60% ALB DBS White PVC 1,000' Box
593318	1829A 0101000	Non-Plenum — RG-6 18 AWG Solid CCS F+60% ALB DBS Black PVC 1,000' Reel
593320	1829A 010U1000	Non-Plenum — RG-6 18 AWG Solid CCS F+60% ALB DBS Black PVC 1,000' Box
599220	1841AC 010500	Non-Plenum — RG-6 18 AWG Solid BC F+60% ALB Dual CM Black PVC 500' Reel
591360	1189AP 8771000	Plenum — RG-6 18 AWG Solid CCS Quad Shield DBS Natural 1,000' Reel
539251	82269 8771000	Plenum — RG-62A/U 22 AWG Solid CCS 93% BCB CMP, Natural 1,000' Reel
701115	89463 0061000	Plenum — Twinax-Blue Hose® 78 ohm CMP, CL2P Lt. Blue 1,000' Reel



## Analog CCTV Video Copper to Fiber Media Converter

Transition Networks' analog composite video media transmitter, J/VD-TX-01, converts a CCTV signal from cameras to a single strand of multimode or singlemode fiber for up to 10km. Transition Networks' analog video media receiver, J/VD-RX-01, converts the optical signal back to an analog composite video signal. All conversions are performed in real time. Automatic gain control installed on both transmitter and receiver maintains desired quality of video's contrast and brightness for extended distances. No field adjustments are necessary.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
805862	J/VD-TX-01	Video Transmitter BNC (75 ohm) to Multimode (ST) (1km/0.6mi)
805863	J/VD-RX-01	Video Receiver BNC (75 ohm) to Multimode (ST) (1km/0.6mi)
854277	J/VD-TX-01(SC)	Video Transmitter BNC (75 ohm) to Multimode (SC) (1km/0.6mi)
794192	J/VD-RX-01(SC)	Video Receiver BNC (75 ohm) to Multimode (SC) (1km/0.6mi)
817612	J/VD-TX-01(SM)	Video Transmitter BNC (75 ohm) to Singlemode (ST) (10km/6.2mi)
817610	J/VD-RX-01(SM)	Video Receiver BNC (75 ohm) to Singlemode (ST) (10km/6.2mi)





## AXIS Q1910/-E Thermal Network Cameras

AXIS Q1910/-E Thermal Network Cameras provide reliable detection in dark and challenging conditions — even in complete darkness. Both indoor and outdoor-ready models offer 160 x 128 resolution, 8.33 fps, 17° angle of view, ONVIF, H.264, audio, Power over Ethernet (PoE), and VMD.

### **Features**

- Thermal imaging for IP surveillance
- IP66-rated outdoor-ready model with window heater
- Power over Ethernet (PoE)
- Multiple H.264 streams with individual palettes
- Intelligent video capabilities

#### **Benefits**

- · Cost-effective thermal network cameras
- Both indoor and outdoor models powered through PoE
- · Advanced network security and management capabilities
- Powerful Application Programming Interface (API) for software integration



0334-001

CSC PART NO.	MFR. PART NO.	DESCRIPTION
870125	0334-001	AXIS Q1910 Indoor Camera
270128	0335-001	AXIS 01910-F Outdoor-Ready Camera

## AXIS Q1921/-E Thermal Network Cameras

High-quality detection and wide range coverage.

- Thermal imaging for IP surveillance
- Lens alternatives for different applications
- High-quality detection
- Intelligent video capabilities
- Power over Ethernet



0384-001

CSC PART NO.	MFR. PART NO.	DESCRIPTION
885283	0384-001	AXIS Q1921 19mm (Standard) Indoor Thermal Network Camera, 30 fps
885286	0385-001	AXIS Q1921-E 19mm (Standard) Outdoor-Ready Thermal Network Camera, 30 fps
885287	0388-001	AXIS Q1921 10mm (Wide) Indoor Thermal Network Camera, 30 fps
885288	0389-001	AXIS Q1921-E 10mm (Wide) Outdoor-Ready Thermal Network Camera, 30 fps
885289	0390-001	AXIS Q1921-E 35mm (Tele) Outdoor-Ready Thermal Network Camera, 30 fps
885290	0391-001	AXIS 01921-F 60mm (extra Tele) Outdoor-Ready Thermal Network Camera 30 fps





#### AXIS 211 Network Camera

Superior video quality for professional indoor and outdoor applications.

- Superior image quality using progressive scan CCD and varifocal DC-iris lens
- Fully featured network camera with Power over Ethernet and privacy masking
- Simultaneous Motion JPEG and MPEG-4 streams optimized for quality and bandwidth
- 30 frames per second up to VGA 640 x 480 resolution
- · Built-in Video Motion Detection with pre- and post-alarm buffers







MFR. PART NO.

DESCRIPTION

0198-004

AXIS 211 Network Camera

## AXIS 211W Network Camera

Flexible wireless video surveillance with superior image quality.

#### **Features**

- · Superior image quality
- Simultaneous Motion JPEG and MPEG-4
- · Flexible installation with wireless capability
- Secure communication





MFR. PART NO.

DESCRIPTION

0270-004

AXIS 211W Network Camera

#### AXIS 215 PTZ Network Camera

Compact pan/tilt/zoom camera for 360° video surveillance.

- Pan, tilt, and zoom control over IP network
- 360° pan with auto-flip
- 12x optical and 4x digital, totally 48x zoom
- · Day and night functionality for increased light sensitivity
- Two-way audio, including audio detection alarm



## AXIS 215 PTZ-E Network Camera

Compact, outdoor-ready pan/tilt/zoom camera.

- Outdoor-proof
- IP66-rated protection
- Easy to install
- Day and night function
- 360° pan with auto-flip











## AXIS 216FD Fixed Dome Network Camera

Professional, discreet camera for indoor video and audio surveillance.

#### **Features**

- Discreet and compact design effectively protects against tampering
- Superior image quality with progressive scan and 30 frames per second in VGA
- Simultaneous Motion JPEG and MPEG-4 for optimized quality and bandwidth
- · Two-way audio support, including built-in microphone and audio detection alarm
- · Power over Ethernet for reduced cabling and consolidated power



USU PART NU.	MFR. PART NU.	DESCRIPTION
780000	0240-004	AXIS 216FD Fixed Dome Network Camera

## AXIS 216FD-V Network Camera

Discreet, vandal-resistant camera for demanding indoor video surveillance.

#### **Features**

- Expedient and adaptable design
- Superior image quality with progressive scan
- Simultaneous Motion JPEG and MPEG-4
- Two-way audio
- · Power over Ethernet

CSC PART NO.	MFR. PART NO.	DESCRIPTION
794022	0268-004	AXIS 216FD-V Network Camera

## AXIS 216MFD/-V Network Cameras

Discreet video surveillance with exceptional image detail.

## **Features**

- Megapixel resolution
- Simultaneous Motion JPEG and MPEG-4
- Discreet and compact design
- Power over Ethernet
- Two-way audio support







0279-004

CSC PART NO.	MFR. PART NO.	DESCRIPTION
807618	0278-004	AXIS 216MFD Network Camera
807621	0279-004	AXIS 216MFD-V Network Camera

## AXIS 233D Network Dome Camera

High-speed dome camera with progressive scan and 35x zoom.

- 35x zoom with EIS (Electronic Image Stabilizer)
- Wide dynamic range
- Area zoom
- Full frame rate at all resolutions in MPEG-4 or Motion JPEG
- Two-way audio

CSC PART NO.	MFR. PART NO.	DESCRIPTION
843056	0266-004	AXIS 233D Network Dome Camera







## AXIS M10 Network Camera Series

AXIS M10 Network Cameras are the smallest and smartest network cameras from the market leader, offering best-in-class image quality.

#### **Features**

- Functional and smart design
- · Excellent video quality, including HDTV quality
- Multiple H.264 and Motion JPEG streams
- Power over Ethernet (PoE) (AXIS M1054)
- Wireless capability (AXIS M1011-W and AXIS M1031-W)





CSC PART NO.	MFR. PART NO.	DESCRIPTION
847073	0302-004	AXIS M1011, Wired Interface
847069	0301-004	AXIS M1011-W, Wired and Wireless Interface
847068	0300-004	AXIS M1031-W, Wired and Wireless Interface, PIR Sensor, Illumination LED, and Two-Way Audio
876561	0338-004	AXIS M1054, HDTV Image Quality, PoE. PIR Sensor, Illumination LED. Two-Way Audio, and I/O Ports

## **AXIS M11 Network Camera Series**

The AXIS M11 Network Camera Series includes compact and affordable high-resolution cameras for professional surveillance.

## Features

- Excellent image quality
- Compact design
- Digital PTZ
- · Pixel counter
- Power over Ethernet (PoE)

### Benefits

- Multiple H.264 and Motion JPEG streams
- Intelligent video capabilities
- Advanced security and network management



CSC PART NO.	MFR. PART NO.	DESCRIPTION
875781	0329-001	AXIS M1103 2.8mm Fixed Focal Lens, SVGA Resolution
875802	0366-001	AXIS M1103 6mm Fixed Focal Lens, SVGA Resolution
875795	0339-001	AXIS M1104 2.8mm Fixed Focal Lens, HDTV 720p/1MP Resolution
875806	0367-001	AXIS M1104 6mm Fixed Focal Lens, HDTV 720p/1MP Resolution
875803	0340-001	AXIS M1113 Varifocal DC-Iris Lens, SVGA Resolution
875804	0341-001	AXIS M1114 Varifocal DC-Iris Lens, HDTV 720p/1MP Resolution

## AXIS M3011 Fixed Dome Network Camera

Ultra-discreet, recessed-mount video surveillance solution.

- · Ultra-discreet fixed dome design
- Progressive scan
- Multiple H.264 streams
- Easy installation
- Power over Ethernet

CSC PART NO.	MFR. PART NO.	DESCRIPTION
847067	0284-004	AXIS M3011 Fixed Dome Network Camera







#### AXIS M31-R Network Camera Series

Compact, rugged network cameras for mobile video surveillance.

#### **Features**

- · Flat, rugged design
- · Excellent video quality, including HDTV
- Multiple H.264 and Motion JPEG video streams
- · Quick and reliable installation
- · Intelligent video capabilities

CSC PART NO.	MFR. PART NO.	DESCRIPTION
871389	0330-001	AXIS M3113-R Network Camera, SVGA resolution, rugged RJ45 connector
871400	0358-001	AXIS M3113-R M12 Network Camera, SVGA resolution, M12 connector
871398	0342-001	AXIS M3114-R Network Camera, 1MP/HDTV 720p resolution, rugged RJ45 connector
871401	0359-001	AXIS M3114-R M12 Network Camera, 1MP/HDTV 720p resolution, M12 connector



## AXIS M32 Network Camera Series

AXIS M32 Network Cameras provide discreet, compact, and affordable fixed domes with digital pan/tilt/zoom for professional surveillance.

#### **Features**

- Excellent image quality, including HDTV
- Multiple H.264 and Motion JPEG streams
- Power over Ethernet (PoE)
- Pixel counter verifies required pixel resolution
- Intelligent video capabilities





0336-001

0345-001

CSC PART NO.	MFR. PART NO.	DESCRIPTION
875787	0336-001	AXIS M3203, SVGA Resolution, Tamper-Resistant Casing
875789	0345-001	AXIS M3203-V, SVGA Resolution, Vandal-Resistant Casing
875788	0337-001	AXIS M3204, HDTV 720p/1MP Resolution, Tamper-Resistant Casing
875794	0346-001	AXIS M3204-V, HDTV 720p/1MP Resolution, Vandal-Resistant Casing

## AXIS M3014 Fixed Dome Network Camera

Ultra-discreet, recessed-mount video surveillance solution.

## **Features**

- Ultra-discreet fixed dome design
- Progressive scan and megapixel resolution
- Multiple H.264 streams
- Easy installation
- · Power over Ethernet

CSC PART NO.	MFR. PART NO.	DESCRIPTION
857904	0285-004	AXIS M3014 Fixed Dome Network Camera

## AXIS P13 Network Camera Series

The AXIS P13 Network Camera Series offers superb image quality, wide dynamic range, and day and night functionality for video surveillance in any environment.

- · Superb video quality, including HDTV quality
- P-Iris control (AXIS P1346)
- · Multiple H.264 and Motion JPEG video streams
- · Digital PTZ and multi-view streaming
- · Easy installation with focus assistant, remote back focus, and pixel counter

CSC PART NO.	MFR. PART NO.	DESCRIPTION
865978	0320-001	AXIS P1343, SVGA Resolution, Varifocal DC-Iris
865980	0324-001	AXIS P1344, HDTV 720p/1MP Resolution, Varifocal DC-Iris
861613	0328-001	AXIS P1346, HDTV 1080p/3MP Resolution, Varifocal P-Iris











#### **AXIS P13-E Network Cameras**

Outdoor-ready fixed cameras with superb image quality.

#### **Features**

- Outdoor ready
- Easy outdoor installation, including focus assistant, remote back focus, and pixel counter
- · IP66-rated protection from dust and water
- IK10-rated protection from impacts
- Superb video quality including HDTV

CSC PART NO.	MFR. PART NO.	DESCRIPTION
878263	0349-001	AXIS P1343-E Network Camera, SVGA resolution
878168	0350-001	AXIS P1344-E Network Camera, 1MP or HDTV 720p





CSC PART NO.	MFR. PART NO.	DESCRIPTION
878265	0351-001	AXIS P1346-E Network Camera, 3MP or HDTV 1080p
883993	0368-001	AXIS P1347-E Network Camera, 5MP or HDTV 1080p

## AXIS P33 Network Camera Series

The AXIS P33 Network Camera Series includes fixed-dome cameras for any environment with remote focus and zoom.

#### **Features**

- · High-performance video, including HDTV quality
- Multiple H.264 and Motion JPEG video streams
- Easy installation with remote focus and zoom
- Day and night functionality
- Outdoor ready models supporting extended temperature range





0307-001
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0299-001

CSC PART NO.	MFR. PART NO.	DESCRIPTION
856286	0307-001	AXIS P3343 6mm, SVGA Resolution
856288	0307-031	AXIS P3343 12mm, SVGA Resolution
856290	0308-001	AXIS P3343-V 6mm, SVGA Resolution, Vandal-Resistant Casing
856292	0308-031	AXIS P3343-V 12mm, SVGA Resolution, Vandal-Resistant Casing
856287	0299-001	AXIS P3343-VE 6mm, SVGA Resolution, Vandal-Resistant Casing, Outdoor Ready
856293	0299-031	AXIS P3343-VE 12mm, SVGA Resolution, Vandal-Resistant Casing, Outdoor Ready
856295	0326-001	AXIS P3344 6mm, HDTV 720p/1MP Resolution
856296	0326-041	AXIS P3344 12mm, HDTV 720p/1MP Resolution
856297	0327-001	AXIS P3344-V 6mm, HDTV 720p/1MP Resolution, Vandal-Resistant Casing
856298	0327-041	AXIS P3344-V 12mm, HDTV 720p/1MP Resolution, Vandal-Resistant Casing
856299	0325-001	AXIS P3344-VE 6mm, HDTV 720p/1MP Resolution, Vandal-Resistant Casing, Outdoor Ready
856300	0325-041	AXIS P3344-VF 12mm HDTV 720n/1MP Resolution Vandal-Resistant Casing Outdoor Ready

## AXIS P3301/-V Network Cameras

AXIS P3301/-V Network Cameras provide discreet video surveillance with outstanding H.264 performance.

- Superior image quality and two-way audio
- Multiple H.264 and Motion JPEG streams
- Unobtrusive and compact indoor design
- Power over Ethernet (PoE)
- Intelligent video capabilities







0290-004

0292-004

CSC PART NO.	MFR. PART NO.	DESCRIPTION
839738	0290-004	AXIS P3301 Network Camera
839746	0292-004	AXIS P3301-V Network Camera, Vandal-Resistant Casing





## AXIS P3304/-V Fixed Dome Network Cameras

AXIS P3304/-V Fixed Dome Network Cameras offer discreet video surveillance with outstanding HDTV and H.264 performance.

#### **Features**

- Superior HDTV image quality and two-way audio
- Multiple H.264 and Motion JPEG streams
- Unobtrusive and compact design
- Power over Ethernet (PoE)
- Pixel counter

#### **Benefits**

- · Intelligent video capabilities
- · Advanced security and network management

CSC I	PART NO.	MFR. PART NO.	DESCRIPTION
8765	559	0352-004	AXIS P3304 Fixed Dome Network Camera
8765	560	0353-004	AXIS P3304-V Fixed Dome Network Camera, Vandal-Resistant Casing

## AXIS P5532-E PTZ Dome Network Camera

The outdoor-ready AXIS P5532-E PTZ Dome Network Camera presents a cost-effective, pan/tilt/zoom surveillance solution with 29x zoom and high-quality H.264 video in D1 resolution.

- 29x optical zoom with autofocus
- IP66 and NEMA 4X
- D1 resolution
- · Wide dynamic range
- · High PoE (Power over Ethernet)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
886144	0312-004	AXIS P5532-E PTZ Dome Network Camera

## AXIS P5534 PTZ Dome Network Camera

The AXIS P5534 PTZ Dome Network Camera is an HDTV pan/tilt/zoom camera with 18x zoom for indoor applications.

### **Features**

- HDTV 720p
- IP51-rated to protect against dust and dripping water
- High Power over Ethernet (PoE)
- 18x zoom with autofocus
- Two-way audio

CSC PART NO.	MFR. PART NO.	DESCRIPTION
867540	0314-004	AXIS P5534 PTZ Dome Network Camera

#### AXIS P5534-E PTZ Dome Network Camera

The outdoor-ready AXIS P5534-E PTZ Dome Network Camera offers outstanding HDTV-quality video and 18x zoom, enabling surveillance of a large area and great details when zooming in.

#### **Features**

- HDTV 720p
- Outdoor ready: IP66- and NEMA 4X-rated
- High PoE (Power over Ethernet)
- 18x zoom with autofocus
- · Advanced Gatekeeper functionality

CSC PART NO.	MFR. PART NO.	DESCRIPTION
886143	0316-004	AXIS P5534-E PTZ Dome Network Camera

















## AXIS Q1755 Network Camera

The AXIS Q1755 is an HDTV network camera with 10x optical, 12x digital zoom, and H.264 compression support. It provides outstanding HDTV performance in compliance with the SMPTE standard and offers day and night functionality.

#### **Features**

- HDTV image quality
- Zoom and autofocus
- Local storage
- Power over Ethernet (PoE)
- · Intelligent video capabilities



CSC PART NO.	MFR. PART NO.	DESCRIPTION
848642	0304-001	AXIS Q1755 Network Camera

## AXIS Q1755-E Network Camera

The AXIS Q1755-E Network Camera is an outdoor ready HDTV camera with 10x optical, 12x digital zoom, autofocus, H.264 compression support, and day and night functionality.



- Outdoor ready
- Easy installation
- IP66-rated protection from dust and water
- HDTV 720p/1080i quality
- Zoom and auto focus

#### **Benefits**

- Intelligent video capabilities
- Advanced security and network management

CSC PART NO.	MFR. PART NO.	DESCRIPTION
877503	0348-001	AXIS Q1755-E Network Camera

## AXIS Q6032-E PTZ Dome Network Camera

The AXIS Q6032-E is an advanced, high-performance, outdoor-ready PTZ dome with 220 $^{\circ}$  tilt, wide dynamic range, and day and night functionality for demanding surveillance applications.

## Features

- Outdoor ready
- Arctic Temperature Control
- High Power over Ethernet (PoE)
- 35x zoom with autofocus
- Multiple H.264 and Motion JPEG streams

## Benefits

- Local storage
- Progressive scan
- · Fast pan and tilt
- Extended tilt range of 20° above the horizon
- Intelligent video capabilities



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MFR. PART NO.

DESCRIPTION

855837 0318-004

AXIS Q6032-E Dome Network Camera





## AXIS Q6034 PTZ Dome Network Camera

The AXIS Q6034 PTZ Dome Network Camera offers HDTV surveillance with high-speed pan and tilt, 18x optical zoom, and day and night functionality for indoor use.

#### **Features**

- HDTV 720p
- IP52 rated to protect against dust and dripping water
- High Power over Ethernet (PoE)
- 18x zoom with autofocus
- Advanced Gatekeeper functionality

#### **Benefits**

- Multiple H.264 and Motion JPEG streams
- · Local storage
- · Progressive scan
- · Advanced security and network management
- Two-way audio





CSC PART NO.	MFR. PART NO.	DESCRIPTION
876562	0363-004	AXIS Q6034 PTZ Dome Network Camera

## AXIS Q6034-E PTZ Dome Network Camera

Outdoor ready for high-speed HDTV surveillance.

#### **Features**

- HDTV 720p
- · Outdoor ready: IP66- and NEMA 4X-rated
- Arctic Temperature Control
- High PoE (Power over Ethernet)
- 18x zoom with autofocus

<b>CSC PART</b>	NO. MFR. PART NO.	DESCRIPTION	
882260	0362-004	AXIS Q6034-E PTZ Dome Network Cam	era

## AXIS Q7406 Video Encoder Blade

The AXIS Q7406 Video Encoder Blade is a high-density video surveillance solution with outstanding H.264 performance. It enables six analog video channels to be converted into multiple H.264 and Motion JPEG streams in a rack-based, IP-surveillance system.

- Full frame rate in H.264 and Motion JPEG in all resolutions
- Reduced bandwidth and storage using H.264 compression
- · Multiple, individually configurable streams
- · High density with six individual channels
- · Intelligent video capabilities

CSC PART NO.	MFR. PART NO.	DESCRIPTION
843487	0289-001	AXIS Q7406 Video Encoder Blade









## AXIS Q7900 Rack

The AXIS Q7900 Rack is a high-density rack solution for demanding video surveillance. The 19" unit holds up to 14 hot-swappable blades, enabling up to 84 analog cameras to be integrated into an IP-surveillance system.

#### Features

- Slots for 14 hot-swappable blades
- Four Gigabit Ethernet ports
- Redundant power supplies
- · Hot-swappable fan cassettes





CSC PART NO.	MFR. PART NO.	DESCRIPTION
843459	0287-004	AXIS Q7900 Rack

## AXIS Q8108-R Network Video Recorder

AXIS Q8108-R is an 8-channel Network Video Recorder (NVR) especially designed for public and commercial transportation applications.

#### **Features**

- Rugged design
- Easy and reliable installation
- Power management
- · Project customization
- Support for HDTV and H.264

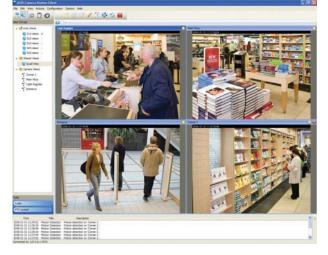
CSC PART NO.	MFR. PART NO.	DESCRIPTION
885235	0332-031	AXIS Q8108-R Network Video Recorder



Comprehensive video management software for monitoring, recording, playback, and event management.

- Fail-over recording in cameras to secure system operation
- Active Tampering Alarm to detect disrupted camera operation
- AXIS Cross Line trigger to further optimize bandwidth and storage efficiency
- Additional I/O and superb audio quality using AXIS P8221 I/O Audio Module
- Instant control of the system using AXIS T8310 Video Surveillance Control Board





CSC PART NO.	MFR. PART NO.	DESCRIPTION
723795	0202-004	AXIS Camera Station 10-Camera Base License
748448	0202-054	AXIS Camera Station 4-Camera Base License
834723	0202-264	AXIS Camera Station 20-License Add On
723796	0202-014	AXIS Camera Station 5-License Add On
723798	0202-034	AXIS Camera Station 1-License Add On
723797	0202-024	AXIS Camera Station 1-Year Support Extension

## Physical Security Solutions for the Federal Enterprise

Your responsibilities as a technical leader and resource to your end-users are not limited to only supporting the IT needs of your colleagues; it goes far beyond that. We live in a "different" world today. Your added responsibility includes the well-being of everything, including people, policies, procedures, access, and security clearances in an environment that must accommodate civilian personal management.

CSC understands that.



# WHAT'S WRONG WITH THIS PICTURE?

Is this man...

an AUTHORIZED USER,
a TRUSTED THIRD PARTY,
a CERTIFIED AUTHORITY?

- Is he a THREAT?
- Or JUST WORKING late?
  YOU WOULD ALREADY KNOW...

With INTELLIGENT VIDEO ANALYTICS transmitted over your existing cabling infrastructure, YOU WOULD ALREADY KNOW whether this person is authorized to be there or a threat. This breakthrough solution, available from CSC, is capable of notifying you in real-time, utilizing the latest in IP-based communications delivered right to your laptop, cell phone, or PDA. And, in most cases is backward-compatible with legacy systems.

Communications Supply Corporation has the experience, the know-how, and we understand what you're up against.

When it comes to Physical Security, we would like to earn the position as your trusted business partner.

We offer you an unbiased opinion and are viewed by many in your position as an indispensable information resource for the latest technologies available in today's marketplace — helping you make the best possible decisions.

CSC, partnering with manufacturers, delivers complete PHYSICAL SECURITY Solutions for the Federal, State, and Local Government End-User.





# More dependability. More efficiency in your data center.









9130 UPS

BladeUPS

ePDU

## Eaton provides innovative power management solutions.

Uninterruptibility from Eaton® isn't a new offering. It's an iron-clad promise, backed by a \$15B global organization and a century-long heritage with power protection, distribution and management expertise. That expertise has grown to include Eaton ePDU®, BladeUPS® and 9130 UPS products.

Eaton designs and engineers innovative power management solutions and services to meet the demands of the most power-intense environments in the industry. When it comes to experience in power protection, distribution and management, Eaton has it all.





Contact your local CSC Representative or visit: www.gocsc.com/SecureIT

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# **Industry-Leading Manufacturers...**







# The solutions featured on pages 142–147 include:

- Automated MAC Work
- Supported High-Density Applications
- Intergration with Power and HVAC
- Emergency Power
- Increased IT Efficiency

# Data Center Management

Infrastructure	
Management	142
Cooling Solutions	143
Data Center Power	144_14







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Avocent.

#### Avocent Data Center Planner™

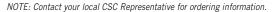
Visual modeling for the data center: quickly assess current assets, including power and HVAC utilization, and visualize changes in real time.

#### **Features**

- Available capacity quickly visualize data center space, power, cooling, weight, and network connectivity
- Asset control locate data center assets based on manufacturer, installation date, warranty expiration, and other search criteria
- Future planning perform "what-if" analysis prior to issuing change requests for adding or moving data center assets

#### Benefits

- More effectively plan changes with data and outcomes you can count on
- Replaces disparate tools and cumbersome methods for designing and planning changes
- Lower operating and labor costs by reducing manual inventorying and search
- Deliver effective resource and capacity planning
- Align business unit demands with data center capacity





## DSView<sup>™</sup> 3 Management Software

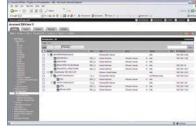
Consolidating data center management functionality into a single interface, DSView 3 software delivers complete data center control necessary for the 24/7 data center. When used in conjunction with KVM appliances, serial console appliances, service processor gateways, and PDUs, the hardware and software combine to enable IT administrators to remotely access, monitor, and control target devices on multiple platforms at numerous locations — anywhere, anytime.

#### Features

- Automation automate mundane, repetitive management, and security tasks
- Centrally manage and access all your KVM switches, console servers, PDUs, and embedded technologies through one interface

#### Renefits

- Hub and spoke architecture for redundancy and real-time synchronization
- Fast and easy deployment with pre-configured Appliance Configuration Templates
- User authentication through internal/external services such as LDAP, Active Directory, NT Domain, TACACS+, RADIUS, and RSA SecurID®





GSG PART NU.	WIFK. PAKT NU.	DESCRIPTION
947623	DSV3-HUB	DSView 3 Hub — 1 Hub, 100 Devices, 1-Year Silver Maintenance and Support: SCNT-1YSLV-HUB
947624	DSV3-STND	DSView 3 Standard Pack — 1 Hub, 1 Spoke, 500 Devices, 1-Year Silver Maintenance and Support: SCNT-1YSLV-STND
863564	DSV3-PLUS	DSView 3 Plus Pack — 1 Hub, 4 Spoke, 2,000 Devices, 1-Year Silver Maintenance and Support: SCNT-1YSLV-PLUS
947625	DSV3-PREM	DSView 3 Premium Pack — One Hub, 8 Spoke, 5,000 Devices, 1-Year Silver Maintenance and Support: SCNT-1YSLV-PREM
947626	DSV3-MAX	DSView 3 MAX Pack — 1 Hub, 15 Spoke, Unlimited Devices, 1-Year Silver Maintenance and Support: SCNT-1YSLV-MAX

NOTE: Other features, third-party add-ons, support, and software upgrades available.



"As more and more assets are added to the network, more and more vulnerabilities are added too.
We needed a way to visualize our growth and plan for the future while making changes in real time."





#### Adaptive Enclosure Heat Containment (AEHC) System

The Belden® Adaptive Enclosure Heat Containment System (AEHC) substantially reduces your IT enclosure cooling costs by achieving 100% utilization of your existing cooling infrastructure. The result is an efficient, "green" facility, and a 30-50% reduction in cooling costs by eliminating hot spots within the enclosures and the need to oversupply cool air. Belden's Adaptive Enclosure Heat Containment System is a highly effective method for cooling data center enclosures in a much more efficient and cost-effective way than was previously possible. Based on a pressure reading made by a sensor inside the enclosure plenum, the rotational speed of the fans in the two cartridges mounted atop the enclosure is modulated, so that they pull out exactly the correct amount of air from the enclosure and send it back to the air conditioner return via a ceiling plenum.

- · Eliminates hot spots and over-supply of cold air in data center
- · Maximizes enclosure density and space on the floor
- Higher temperatures in the air returned to CRAC improves efficiency
- Lowest total cooling equipment cost available per kW of IT load
- Adaptable to existing enclosures and easily allows IT adds, changes, and removals without disrupting IT operation or the environment
- · Rapid installation and training



CSC PART NO.	MFR. PART NO.	DESCRIPTION		
Adaptive Enclosure Heat Containment (AEHC) System				
882032	HCS010	AEHC System (10kW) Chassis, Fans, Host, Sensor		
878905	HCS020	AEHC System (20kW) Chassis, Fans, Host, Sensor		
AEHC Accessor	ies			
882034	HCFD10	AEHC 10kW Fan Cartridge with Display		
882039	HCFD20	AEHC 20kW Fan Cartridge with Display		
Call CSC	HCD0xx	AEHC Duct Custom Height, xx-Height Inches		
882041	HCD052	AEHC Duct, 52"		
882043	HCDS12	AEHC Duct, 12" Stackable		
882045	HCDS24	AEHC Duct, 24" Stackable		
882049	HCAD01	AEHC Inter-Duct Connector 24"/600mm		
882051	HCAD02	AEHC Inter-Duct Connector 30"/750mm		
882052	HCAD03	AEHC 20" Round Duct Adapter		
882054	HCHC01	AEHC Chassis, Power/Ethernet with Host, Sensor		
882055	HCH001	AEHC Power/Ethernet Host		
882056	HCP001	AEHC Pressure Sensor with Mounting Bracket		
882057	HCP002	AEHC Temperature/Humidity Sensor with Mounting Bracket		
882058	HCC001	AEHC Chassis Assembly		



Belden's AEHC System utilizes pressure sensing to dynamically adjust fan speed, resulting in perfect balance between intake and exhaust air volume.



Intelligent hot swappable fan cartridges enable ease of maintenance and system scalability.



Belden's AEHC System features external displays for quick and easy assessment of system load and alarm conditions.









FATON

Powerina Business Worldwide

#### Eaton 5130 Rack/Tower UPS

The Eaton 5130 UPS offers density-optimized, highly configurable, advanced power protection for IT networking closets, medical systems, communications/VoIP network systems, and other mission-critical applications. With a two-in-one rack/tower form factor, the 5130 UPS packs up to 3 kVA of power into 2U of rack space. The 5130 UPS provides additional battery runtime with 2U extended battery modules. To enhance compatibility with modern IT loads, the 5130 UPS is designed with a 0.9 power factor.

#### **Features**

- PF 0.9+ means more watts available and compatibility with modern IT loads
- High-power density (2U up to 3 kVA)
- Compatible with short depth racks up to 3 kVA
- · Load segmentation provided
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
871565	PW5130L1000-XL2U	Eaton 5130 UPS 1000 VA/1000W Rackmount/Tower 2U
871566	PW5130L1500-XL2U	Eaton 5130 UPS 1500 VA/1400W Rackmount/Tower 2U
867216	PW5130L2200-XL2U	Eaton 5130 UPS 2200 VA/1920W Rackmount/Tower 2U
850022	PW5130L3000-XL2U	Eaton 5130 UPS 2880 VA/2700W Rackmount/Tower 2U
849422	PW5130L3000-XL3U	Eaton 5130 UPS 2880 VA/2700W Rackmount/Tower 3U
947826	PW5130L1500-XL2US	Eaton 5130 UPS 1500 VA 120V Rack/Tower 2U — TAA Compliant
947827	PW5130L2200-XL2US	Eaton 5130 UPS 2200 VA 120V Rack/Tower 2U — TAA Compliant
947828	PW5130L3000-XL2US	Eaton 5130 UPS 3000 VA 120V Rack/Tower 2U — TAA Compliant



#### Eaton BladeUPS®

The Eaton BladeUPS is a revolutionary power quality solution ideal for blade servers, data centers, networking applications, storage devices, and critical IT equipment. The scalable and modular BladeUPS expands power protection from 12 to 60 kW in a single 19" rack while reducing energy and cooling costs with its energy-efficient UPS design. The BladeUPS packs 12 kW of power into 6U of rack space and can be deployed in a variety of configurations.

Eaton also offers BladeUPS Preassembled Systems — the same great product, just simplified. All you have to do is bring power to the unit and perform the simple start-up procedure.

#### Features

- Conserves valuable rack space with power-dense 6U form factor
- Delivers the highest levels of reliability with patented Powerware Hot Sync® paralleling technology
- Reduces operating expenses with more flexible, compact configuration options than traditional end-of-row solutions
- Grows with expanding IT applications using scalable architecture
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
828267	ZC1212200100000	BladeUPS 12 kW, 208V with 60A 5W in/5W out
828268	ZC1212210100000	BladeUPS 12 kW, 208V with 60A 5W in/5W out with SNMP
819024	ZC1212600100000	BladeUPS 12 kW, 208V with 60A 5W in/4W out
819053	ZC1212610100000	BladeUPS 12 kW, 208V with 60A 5W in/4W out with SNMP
828272	ZC121P060100000	BladeUPS 12 kW, 208V with Parallel Cord
828273	ZC121P061100000	BladeUPS 12 kW, 208V with Parallel Cord with SNMP
947491	ZP112100XXXX000	BladeUPS Pre-Assembled Bottom Entry 2 Module System
947492	ZP1121110XXXX000	BladeUPS Pre-Assembled Bottom Entry 2 Module System with (1) SNMP
947493	ZP112150XXXX000	BladeUPS Pre-Assembled Bottom Entry 2 Module System with (1) Power Xpert Gateway 2000
947494	ZP1131000XXX000	BladeUPS Pre-Assembled Bottom Entry 3 Module System
947495	ZP1131100XXXX000	BladeUPS Pre-Assembled Bottom Entry 3 Module System with (1) SNMP
947496	ZP1131500XXX000	BladeUPS Pre-Assembled Bottom Entry 3 Module System with (1) Power Xpert Gateway 2000
947497	ZP11410000XX000	BladeUPS Pre-Assembled Bottom Entry 4 Module System
947498	ZP11411000XX000	BladeUPS Pre-Assembled Bottom Entry 4 Module System with (1) SNMP
947499	ZP11415000XX000	BladeUPS Pre-Assembled Bottom Entry 4 Module System with (1) Power Xpert Gateway 2000
947500	ZP115100000X000	BladeUPS Pre-Assembled Bottom Entry 5 Module System
947501	ZP115110000X000	BladeUPS Pre-Assembled Bottom Entry 5 Module System with (1) SNMP
947502	ZP115150000X000	BladeUPS Pre-Assembled Bottom Entry 5 Module System with (1) Power Xpert Gateway 2000
947503	ZP1161000000000	BladeUPS Pre-Assembled Bottom Entry 6 Module System
947504	ZP1161100000000	BladeUPS Pre-Assembled Bottom Entry 6 Module System with (1) SNMP
947505	ZP1161500000000	BladeUPS Pre-Assembled Bottom Entry 6 Module System with (1) Power Xpert Gateway 2000







#### Eaton Rackmount Enclosure Power Distribution Unit (ePDU®)

Eaton's ePDU® allows you to customize your power distribution based on your needs and offers a safe, reliable, and economic option. This product family offers a wide range of input line cords and output receptacles to meet most applications. It also features the broadest portfolio in the industry across all power densities and technologies to satisfy the needs of every data center. Each ePDU is designed to be fully compatible with 19" standard EIA racks.

#### **Features**

- Vertical Zero-U or horizontal 1U/2U configurations
- · Four technologies: switched, monitored, advanced monitored, basic
- · Custom designs on request
- Rugged and reliable design clearly labeled circuits simplify load balancing on certain units



NOTE: The lists of ePDU units listed below represent Eaton's top-selling products. Contact your local CSC representative for a complete list of ePDU product offerings.

#### Value ePDU Line

Eaton's ePDU Value line is designed to provide the highest reliability and quality for the most critical power loads. Lightweight and easy to mount, these power distribution units are cost-effective solutions to meet all business needs.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
944739	ePBZ99	Horizontal Mount; Basic Functionality; L5-20 Input Plug; 5-20 (12) Receptacles; 20A (1) Breaker; 1U
947796	ePBZ88	Horizontal Mount; Basic Functionality; C20 Input Plug; IEC320-C13 (10), IEC320-C19 (2) Receptacles; No Breaker; 1U
947803	ePBZ95	Horizontal Mount; Basic Functionality; L6-20 Input Plug; IEC320-C13 (12), IEC320-C19 (1) Receptacles; No Breaker; 1U
947802	ePBZ94	Horizontal Mount; Basic Functionality; L6-30 Input Plug; IEC320-C19 (6) Receptacles; 20A (2) Breaker; 1U
947799	ePBZ91	Horizontal Mount; Basic Functionality; L6-30 Input Plug; IEC320-C13 (12) Receptacles; 20A (2) Breaker; 1U
943648	ePBZ98	Vertical Mount; Basic Functionality; 5-15 Input Plug; 5-20 (24) Receptacles; 15A Breaker; 0U
947805	ePBZ97	Vertical Mount; Basic Functionality; 5-20 Input Plug; 5-15 (18) Receptacles; 20A (1) Breaker; 0U
947804	ePBZ96	Vertical Mount; Basic Functionality; L5-20 Input Plug; 5-20 (24) Receptacles; 20A (1) Breaker; 0U
947798	ePBZ90	Vertical Mount; Basic Functionality; L5-30 Input Plug; 5-20 (24) Receptacles; 20A (2) Breaker; 0U
947797	ePBZ89	Vertical Mount; Basic Functionality; C14 Input Plug; IEC320-C13 (16) Receptacles; No Breaker; OU
947795	ePBZ87	Vertical Mount; Basic Functionality; C14 Input Plug; IEC320-C13 (16) Receptacles; 20A (1) Breaker; 0U
947800	ePBZ92	Vertical Mount; Basic Functionality; L6-30 Input Plug; IEC320-C13 (20), IEC320-C19 (4) Receptacles; 20A (2) Breaker; 0U
947801	ePBZ93	Vertical Mount; Basic Functionality; L6-20 Input Plug; IEC320-C13 (20), IEC320-C19 (4) Receptacles; 20A (1) Breaker; OU

#### **FlexPDUs**

These units are designed to increase power distribution from a single UPS and provide more flexibility. The Flex units feature a 3' input cord that allows the units to be mounted in close proximity to a single phase UPS. These units also provide multiple outlet configurations in a small chassis.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947467	EFLX1500R-PDU1U	Horizontal Mount; Basic Functionality; 5-15 Input Plug; 5-15 (12) Receptacles, No Breaker; 1U
947468	EFLX2000R-PDU1U	Horizontal Mount; Basic Functionality; 5-20 Input Plug; 5-20 (12) Receptacles, No Breaker; 1U
947469	EFLX2000R-PDU1UL	Horizontal Mount; Basic Functionality; 5-20 Input Plug; L5-20 (5) Receptacles, No Breaker; 1U
947470	EFLXI3000R-PDU1UIEC	Horizontal Mount; Basic Functionality; C20 Inlet Input Plug; IEC320-C13 (12), IEC320-C19 (1) Receptacles, 20A (2) Breaker; 1U
		(includes C19 to C14 and C19 to C20 jumper cables)

#### HotSwap Maintenance Bypass (MBP) PDUs

Facilitating hot-swappable battery replacement from the front panel — with no need to remove the UPS from the rack — the HotSwap MBP is also ideal when exchanging a unit or servicing a UPS. By using the bypass feature, power is maintained to the connected equipment while the UPS is shut down.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947792	EHBPL1500R-PDU1U	Horizontal Mount; Basic Functionality; 5-15 Input Plug; 5-15 (6) Receptacles, No Breaker; 2U
947793	EHBPL2000R-PDU1U	Horizontal Mount; Basic Functionality; 5-20 Input Plug; 5-20 (6) Receptacles, No Breaker; 2U
947794	EHBPL3000R-PDU1U	Horizontal Mount; Basic Functionality; L5-30 Input Plug; 5-20 (5) Receptacles, No Breaker; 2U







## Eaton Rackmount Enclosure Power Distribution Unit (ePDU®) (continued)



#### Standard-Density ePDUs

These units are intended to power up to eight 1U/2U servers or peripherals such as network switches, environmental monitors, KVM devices, rack accessories, and legacy equipment that require 120V only. These ePDUs handle up to 5kW and can have up to 24 outlets.

CSC PART NO.	MFR. PART NO.	DESCRIPTION
850275	PW101BA1U140	Horizontal Mount; Basic Functionality; 5-15 Input Plug; 5-15 (12) Receptacles; 15A (1) Breaker; 1U
859275	PW101MI1U221	Horizontal Mount; Monitored Ethernet Functionality; 5-15 Input Plug; 5-15 (12) Receptacles; 15A (1) Breaker; 1U
947808	PW102BA1U158	Horizontal Mount; Basic Functionality; 5-20 Input Plug; 5-20 (12) Receptacles; 20A (1) Breaker; 1U
947304	PW102BA1U159	Horizontal Mount; Basic Functionality; L5-20 Input Plug; 5-20 (12) Receptacles; 20A (1) Breaker; 1U
947810	PW102MI1U160	Horizontal Mount; Monitored Ethernet Functionality; L5-20 Input Plug; 5-20 (12) Receptacles; 20A (1) Breaker; 1U
947811	PW103BA1U190	Horizontal Mount; Basic Functionality; L5-30 Input Plug; 5-20 (12) Receptacles; 20A (2) Breaker; 1U
860337	PW103MI1U161	Horizontal Mount; Monitored Ethernet Functionality; L5-30 Input Plug; 5-20 (12) Receptacles; 20A (2) Breaker; 1U
947812	PW103BA1U191	Horizontal Mount; Basic Functionality; L6-20 Input Plug; IEC320-C13 (12) Receptacles; 20A (1) Breaker; 1U
947813	PW103MI1U162	Horizontal Mount; Monitored Ethernet Functionality; L6-20 Input Plug; IEC320-C13 (12) Receptacles; 20A (1) Breaker; 1U
947471	PW101MI0U233	Vertical Mount; Monitored Ethernet Functionality; 5-15 Input Plug; 5-15 (24) Receptacles; No Breaker; OU
878876	PW101SW0U224	Vertical Mount; Switched Functionality; 5-15 Input Plug; 5-15 (24) Receptacles; No Breaker; OU
947809	PW102MI0U234	Vertical Mount; Monitored Ethernet Functionality; 5-20 Input Plug; 5-20 (24) Receptacles; No Breaker; OU
873717	PW102MI0U235	Vertical Mount; Monitored Ethernet Functionality; L5-20 Input Plug; 5-20 (24) Receptacles; No Breaker; OU
833860	PW102SW0U151	Vertical Mount; Switched Functionality; L5-20 Input Plug; 5-15 (24) Receptacles; No Breaker; OU
947474	PW103MI0U236	Vertical Mount; Monitored Ethernet Functionality; L5-30 Input Plug; 5-15 (24) Receptacles; 15A (2) Breaker; 0U
947473	PW103BA0U257	Vertical Mount; Basic Functionality; L5-30 Input Plug; 5-20 (24) Receptacles; 20A (2) Breaker; 0U
947814	PW103SW0U152	Vertical Mount; Switched Functionality; L5-30 Input Plug; 5-15 (16) Receptacles; 15A (2) Breaker; OU
947472	PW103BA0U237	Vertical Mount; Basic Functionality; L6-20 Input Plug; IEC320-C13 (24), IEC320-C19 (4); No Breaker; OU
873718	PW103MI0U238	Vertical Mount; Monitored Ethernet Functionality; L6-20 Input Plug; IEC320-C13 (24), IEC320-C19 (4); No Breaker; OU
947815	PW103SW0U153	Vertical Mount; Switched Functionality; L6-60 Input Plug; IEC320-C13 (24) Receptacles; No Breaker; OU

#### **High-Density ePDUs**

These units are intended to power up to 25 1U/2U servers or 3 blade server chassis, offering up to 45 receptacles in multiple form factors. Most ePDUs are equipped with local current meter and IP monitoring capability to facilitate load balancing and prevent circuit overloads.



CSC PART NO.	MFR. PART NO.	DESCRIPTION
947816	PW105BA1U163	Horizontal Mount; Basic Functionality; L6-30 Input Plug; IEC320-C13 (12) Receptacles; 15A (2) Breaker; 1U
947818	PW105MI1U164	Horizontal Mount; Monitored Ethernet Functionality; L6-30 Input Plug; IEC320-C13 (12) Receptacles; 15A (2) Breaker; 1U
947817	PW105BA1U192	Horizontal Mount; Basic Functionality; L6-30 Input Plug; IEC320-C13 (6), IEC320-C19 (4) Receptacles; 20A (2) Breaker; 1U
947819	PW105MI1U165	Horizontal Mount; Monitored Ethernet Functionality; L6-30 Input Plug; IEC320-C13 (6), IEC320-C19 (4) Receptacles; 20A (2) Breaker; 1U
947477	PW105SW2U223	Horizontal Mount; Switched Functionality; L6-30 Input Plug; IEC320-C13 (20), IEC320-C19 (4) Receptacles; 20A (2) Breaker; 2U
947475	PW105BA0U239	Vertical Mount; Basic Functionality; L6-30 Input Plug; IEC320-C13 (24), IEC320-C19 (4) Receptacles; 20A (2) Breaker; 0U
873719	PW105MI0U240	Vertical Mount; Monitored Ethernet Functionality; L6-30 Input Plug; IEC320-C13 (24), IEC320-C19 (4) Receptacles; 20A (2) Breaker; OU
833861	PW105SW0U154	Vertical Mount; Switched Functionality; L6-30 Input Plug; IEC320-C13 (16) Receptacles; 20A (2) Breaker; 0U
947476	PW105MI0U255	Vertical Mount; Monitored Ethernet Functionality; L14-30 Input Plug; IEC320-C13 (24), IEC320-C19 (4), 5-20(4) Receptacles; 20A (2) Breaker: OU
947478	PW306BA0U241	Vertical Mount: Basic Functionality: L21-20 Input Plug; 5-20 (30) Receptacles; No Breaker; OU
947481	PW306MI0U242	Vertical Mount, Monitored Ethernet Functionality, L21-20 Input Plug, 5-20 (30) Receptacles, No Breaker, OU
947482	PW306MI0U243	Vertical Mount; Monitored Ethernet Functionality; L21-20 Input Plug; IEC320-C13 (24), IEC320-C19 (3), 5-20(6) Receptacles;
		No Breaker; OU
945678	PW309MI0U248	Vertical Mount; Monitored Ethernet Functionality; L21-30 Input Plug; IEC320-C13 (24), IEC320-C19 (3), 5-20(6) Receptacles; 20A (3) Breaker; OU
947479	PW306BA0U244	Vertical Mount; Basic Functionality; L21-20 Input Plug; IEC320-C13 (36), IEC320-C19 (6) Receptacles; No Breaker; OU
873720	PW306MI0U245	Vertical Mount; Monitored Ethernet Functionality; L21-20 Input Plug; IEC320-C13 (36), IEC320-C19 (6) Receptacles; No Breaker; OU
883469	PW309MI0U256	Vertical Mount; Monitored Ethernet Functionality; L21-30 Input Plug; IEC320-C13 (30), IEC320-C19 (6) Receptacles; 20A (3) Breaker; OU
947480	PW306BA0U246	Vertical Mount; Basic Functionality; L21-20 Input Plug; 5-20 (18), L6-20 (6) Receptacles; No Breaker; OU
947483	PW306MI0U247	Vertical Mount; Monitored Ethernet Functionality; L21-20 Input Plug; 5-20 (18), L6-20 (6) Receptacles; No Breaker; OU
947822	PW306SW0U155	Vertical Mount; Switched Functionality; L21-20 Input Plug; 5-15 (24) Receptacles; No Breaker; OU
833862	PW306SW0U156	Vertical Mount; Switched Functionality; L21-20 Input Plug; IEC320-C13 (24) Receptacles; No Breaker; OU
947484	PW309MI0U250	Vertical Mount; Monitored Ethernet Functionality; L21-30 Input Plug; IEC320-C13 (36) Receptacles; 20A (3) Breaker; 0U
947823	PW309SW0U178	Vertical Mount; Switched Functionality; L21-30 Input Plug; IEC320-C13 (24) Receptacles; 20A (3) Breaker; 0U





# Eaton Rackmount Enclosure Power Distribution Unit (ePDU®) (continued)



#### **Ultra High-Density ePDUs**

These units are intended to power racks with up to four blade server chassis and other power-hungry pieces of IT equipment and virtualized servers. These power distribution units have 50 and 60A inputs, up to 6 distribution breakers, load-current monitoring per section, and hardwire input options. **Three Phase** 

208V three phase DELTA (CS8365 50A, IEC60309 60A)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947824	PW314BA1U193	Horizontal Mount; Basic Functionality; CS8365 Input Plug; IEC320-C19 (6) Receptacles; 20A (6) Breaker; 1U
947825	PW317MI2U141	Horizontal Mount; Monitored Ethernet Functionality; IEC309-60 Input Plug; IEC320-C19 (12) Receptacles; 20A (6) Breaker; 2U
947485	PW314BA0U251	Vertical Mount; Basic Functionality; CS8365 Input Plug; IEC320-C13 (24), IEC320-C19 (4), L6-30(2) Receptacles;
		20A (2) 30A (1) Breaker; 0U
947487	PW314MI0U252	Vertical Mount; Monitored Ethernet Functionality; CS8365 Input Plug; IEC320-C13 (24), IEC320-C19 (4), L6-30(2) Receptacles;
		20A (2) 30A (1) Breaker; 0U
947486	PW314BA0U253	Vertical Mount; Basic Functionality; CS8365 Input Plug; IEC320-C13 (30), IEC320-C19 (6) Receptacles; 20A (3) Breaker; 0U
947488	PW314MI0U254	Vertical Mount; Monitored Ethernet Functionality; CS8365 Input Plug; IEC320-C13 (30), IEC320-C19 (6) Receptacles; 20A (3) Breaker; OU
873721	PW317MI0U222	Vertical Mount; Monitored Ethernet Functionality; IEC309-60 Input Plug; IEC320-C13 (12), IEC320-C19 (12) Receptacles;
		20A (6) Breaker; OU

#### **Automatic Transfer Switch ePDUs**

Designed for switching non-phase synchronized AC power sources, the intelligent circuitry monitors both inputs, providing a fast switch transfer from primary to secondary source to power critical equipment without interruption. Status LEDs indicate power available and output source.

#### Fosturos

- Dual power inputs automatically select a source best suited to power critical equipment
- Relays meet agency spacing requirements for out-of-phase switching up to 30 amps, while still performing fast enough to minimize transfer time

CSC PART NO.	MFR. PART NO.	DESCRIPTION
873417	PWATSSC20001	Horizontal Mount; Basic Functionality; 2 x C20 Input Plug; IEC320-C13 (8), IEC320-C19 (1) Receptacles; No Breaker; 1U
947806	PULSTS1400R-1U	Horizontal Mount; Monitored Serial Functionality; 2 x 5-15 Input Plug; 5-15 (6) Receptacles; No Breaker; 1U
947807	PULSTS16AMPR-1U	Horizontal Mount; Monitored Serial Functionality; 2 x C20 Input Plug; IEC320-C13 (6), IEC320-C19 (1) Receptacles; No Breaker; 1U
947489	PWATSS515002	Horizontal Mount; Basic Functionality; 2 x 5-15 Input Plug; 5-15 (8) Receptacles; No Breaker; 1U
947490	PWATSS520003	Horizontal Mount; Basic Functionality; 2 x 5-20 Input Plug; 5-20 (8) Receptacles; No Breaker; 1U
872139	PWATSL520004	Horizontal Mount; Basic Functionality; 2 x L5-20 Input Plug; 5-20 (8) Receptacles; No Breaker; 1U
849358	PWATSL530005	Horizontal Mount; Basic Functionality; 2 x L5-30 Input Plug; 5-20 (8) Receptacles; 20A (2) Breaker; 1U
862668	PWATSL630006	Horizontal Mount; Basic Functionality; 2 x L6-30 Input Plug; IEC320-C13 (12) Receptacles; 20A (2) Breaker; 1U
874303	PWATSL530007	Horizontal Mount; Basic Functionality; 2 x L5-30 Input Plug; L5-30 (1) Receptacles; 30A (1) Breaker; 1U
848129	PWATSL630008	Horizontal Mount; Basic Functionality; 2 x L6-30 Input Plug; L6-30 (1) Receptacles; No Breaker; 1U





"In a data center, space and power come at a premium. Extra room or extra capacity for power protection just doesn't exist. We needed power solutions that could maximize the use of our rack space."





### **Eaton's Intelligent Power Software Suite**

Seamlessly manage all of your power devices through a single web interface.

Never before has there been such a streamlined, efficient and intelligent approach to power management than the **Intelligent Power® Software Suite from Eaton®**— available at no charge for Eaton UPSs, and perfect for virtualized environments.

- Intelligent Power Manager supervisory software: up-to-the-minute monitoring and management of all power devices across your network. IPM works seamlessly with VMware's vCenter Server™, and vMotion™, as well as Microsoft's SCVMM™ and Live Migration, making it a perfect solution for virtualized environments.
- Intelligent Power Protector protection software: facilitate automatic graceful shutdown during an extended power outage.

Feel the power yourself. To learn more, or to download both software programs free of charge, visit:

www.eaton.com/intelligentpower

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# **Industry-Leading Manufacturers...**



# The solutions featured on pages 150–152 include:

- Data Center Management
- Emergency Power
- Remote Power Control
- Blade/Tower/Rack/Stand Alone Solutions
- Intelligent Integrated Solutions

# **Emergency Power**







#### Eaton 3105 UPS

The affordable, compact Eaton 3105 UPS was designed to deliver the best power management solution for your small office or home office. Ready to switch to UPS battery power any time it detects a power problem within the utility, the Eaton 3105 UPS delivers reliable power quality and backup power for wireless phones, small office PBX or key phone systems, home office workstations, small office desktop servers, small network nodes, point-of-sale systems, and computer peripheral devices.

#### Contunos

- Compact design saves space fits easily under a desk or can be wall mounted, with quick access to all receptacles
- Keeps essential systems running through power outages (four outlets with surge suppression and battery backup)
- Extends UPS service life with user-replaceable batteries
- Protects network-connected equipment from "back door" surges coming over LAN or telephone lines
- · Delivers short-term mobile power with start-on-battery capability

CSC PART NO.	MFR. PART NO.	DESCRIPTION	CSC PART NO.	MFR. PART NO.	DESCRIPTION
838580	103004248-5591	Eaton 3105 UPS 700 VA/420W	947463	103004246-5591	Eaton 3105 UPS350 VA/210W



#### Eaton 5110 UPS

The Eaton 5110 UPS is a line-interactive UPS system that delivers the ultimate in power quality, constantly safeguarding equipment from power outages, surges, sags, brownouts, and over-voltage conditions, while also providing varying degrees of power management for additional threats.

#### Features

- Compact design saves space can be deployed as a tower or under a computer monitor
- Protects loads on eight outlets four with surge suppression and battery backup, four with surge suppression only
- · Delivers consistent, clean output with automatic voltage regulation (AVR) that doesn't drain battery power
- Extends UPS service life with user-replaceable batteries
- Free monitoring, management, shutdown software (Intelligent Power® Protector)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947464	103004256-5501	Eaton 5110 UPS 500 VA/300W
850006	103004257-5501	Eaton 5110 UPS 700 VA/420W
947465	103004258-5501	Eaton 5110 UPS 1000 VA/600W
047466	102004250 5501	Foton F110 UDS 1/40 VA/000W

CCC PART NO MED PART NO



#### Eaton 5115 UPS

The Eaton 5115 UPS is designed to protect PCs, workstations, SOHO equipment, small inter-networking devices, and other electrical equipment from power disturbances. Available in tower and rackmount models, the 5115 delivers smooth, continuous power with pure sine wave output and operates smoothly during power outages. The 5115 also features ABM® technology that significantly increases battery service life and optimizes recharge time for quick recovery after power outages, which is critical to your system's performance. To preserve data integrity, download the Intelligent Power® Software Suite for free monitoring, management, and shutdown capabilities.



#### **Features**

- Delivers smooth, continuous power with pure sine wave output
- · ABM technology significantly increases battery service life and provides advanced warning that battery life is ending
- Protects equipment from power fluctuations with buck and boost voltage regulation
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)
- $\bullet \ \ \, \hbox{$2$-year limited warranty and $150,000 load protection guarantee; optional gold service plans available}\\$

USC PART NU.	MFR. PART NU.	DESCRIPTION
817561	05146548-5591	Eaton 5115 500 VA/320W Tower UPS
817562	05146554-5591	Eaton 5115 750 VA/500W Tower UPS
817564	05146560-5591	Eaton 5115 1000 VA/670W Tower UPS
817567	05146566-5591	Eaton 5115 1400 VA/950W Tower UPS
821199	103003266-6591	Eaton 5115 500 VA/320W Rackmount UPS
821200	103003269-6591	Eaton 5115 750 VA/500W Rackmount UPS
825274	103003272-6591	Eaton 5115 1000 VA/670W Rackmount UPS
809755	103003275-6591	Eaton 5115 1400 VA/950W Rackmount UPS

USU FART NU.	MICK. FAKT NO.	DESCRIPTION
947786	05146554-5591US	Eaton 5115 750 VA/500W Tower UPS —
		TAA Compliant
947788	05146560-5591US	Eaton 5115 1000 VA/670W Tower UPS —
		TAA Compliant
947790	05146566-5591US	Eaton 5115 1400 VA 120V UPS — TAA Compliant
947791	05146567-5591US	Eaton 5115 1400 VA 230V UPS — TAA Compliant
947789	05146561-5591US	Eaton 5115 1000 VA 230VUPS — TAA Compliant
947787	05146555-5591US	Eaton 5115 750 VA 230V UPS — TAA Compliant

DECEDIBIION









#### Eaton 5125 UPS

The Eaton 5125 UPS provides advanced, cost-effective power management for PCs, workstations, and servers. The 5125 is the most flexible UPS in the 1000–2200 VA power range, with a design that provides maximum power density and features hot-swappable capability on all models. The 5125's load-segment control (separate receptacle groups) enables scheduled shutdowns and maximized runtime for critical devices, while ABM® technology significantly increases battery service life.



#### Features

- Nine power factor delivers more real output power in order to power more servers than another UPS of equivalent VA rating
- Hot-swappable batteries and power modules enable you to service or replace batteries and electronics without interrupting power to protected loads
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)
- 2-year limited warranty and \$150,000 load-protection guarantee; optional gold service plans available

CSC PART NO.	MFR. PART NO.	DESCRIPTION
821057	05146629-5591	Eaton 5125 UPS 1000 VA/700W
826741	05146632-5591	Eaton 5125 UPS 1440 VA/1050W



CSC PART NO.	MFR. PART NO.	DESCRIPTION	
826742	05146635-5591	Eaton 5125 UPS 1920 VA/1600W	

#### Eaton 9130 UPS

The Eaton 9130 UPS provides green IT, high-performance protection and battery backup for unpredictable power in any IT environment. This power protection system provides more real power with a 0.9 power factor and greater than 95% efficiency. The 9130 makes the best use of every utility dollar: it runs efficiently, dissipates less heat, and saves thousands of dollars a year in power and cooling. Designed for loads from 700 to 3000 VA, the 9130 is available in a compact tower or rackmount style and offers a wider choice in output receptacles than other vendors' models.





#### **Features**

- Offers premium performance with a 0.9 power factor and greater than 95% efficiency
- Enables prolonged runtime of essential equipment during power outages by allowing for orderly, remote shutdown of non-critical systems or processes
- Protects critical applications from unpredictable power issues that can cause downtime, data loss, and process interruption by providing continuous, clean power
- Provides installation flexibility with a choice of rack or tower designs, both conserving valuable space

MED DADT NO

• Free monitoring, management, shutdown software (Intelligent Power® Software Suite)

CCC DADT NO

CSC PART NO.	MFR. PART NO.	DESCRIPTION
850056	PW9130L700R-XL2U	Eaton 9130L 2U Rackmount 700 VA/630W UPS
850057	PW9130L1000R-XL2U	Eaton 9130L 2U Rackmount 1000 VA/900W UPS
850058	PW9130L1500R-XL2U	Eaton 9130L 2U Rackmount 1500 VA/1350W UPS
850059	PW9130L2000R-XL2U	Eaton 9130L 2U Rackmount 2000 VA/1800W UPS
861768	PW9130L2500R-XL2U	Eaton 9130L 2U Rackmount 2500 VA/2250W UPS
850061	PW9130L3000R-XL2U	Eaton 9130L 2U Rackmount 3000 VA/2700W UPS

USU FART NO.	MICK. FAKT NO.	DESCRIFTION
947833	PW9130L700R-XL2US	Eaton 9130 700 VA 120V 2U Rackmount
		UPS — TAA Compliant
885558	PW9130L1500R-XL2US	Eaton 9130 1500 VA 120V 2U Rackmount
		UPS — TAA Compliant
947831	PW9130L2000R-XL2US	Eaton 9130 2000 VA 120V 2U Rackmount
		UPS — TAA Compliant
947832	PW9130L3000R-XL2US	Eaton 9130 3000 VA 120V 2U Rackmount
		UPS — TAA Compliant

DECUDIDATION

#### Eaton 9140 UPS

The Eaton 9140 Rackmount UPS provides premium online backup power and scalable battery runtimes for medium- and high-density rack environments. Packing 10 kVA of power into 6U, the 9140 UPS conserves valuable rack space. The 9140 significantly extends battery service life with ABM® technology and prolongs runtimes with extended 3U battery modules.

#### **Features**

- Accommodates system growth with capacity upgrade availability from 7.5 to 10 kVA
- Up to 10 kVA of power in 6U (including batteries) conserves valuable rack space
- Modular, lightweight design facilitates easy installation and reduces service time
- Pre-installed rackmount hardware significantly reduces installation time
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)

CSC PART NO.	MFR. PART NO.	DESCRIPTION
826750	103005093-6591	Eaton 9140 7500 HW UPS
826751	103004728-6591	Eaton 9140 10000 HW UPS





#### Eaton 9155 UPS

The Eaton 9155 UPS double-conversion online UPS resolves all nine of the most common utility power quality problems and supplies clean, continuous power to all connected equipment. The innovative design of this UPS delivers a genuine triple play: the latest technology advances, a stylish and user-friendly design, and a budget-pleasing price. In fact, the 9155 delivers more features at a price lower than its predecessor.





CSC PART NO.	MFR. PART NO.	DESCRIPTION
826754	K408110000	8 kVA 32-Battery (2-high), 8 kVA (7.2 kW)
826755	K408120000	8 kVA 64-Battery (3-high), 8 kVA (7.2 kW)
826757	K408130000	8 kVA 32-Battery with Transformer Module (3-high), 8 kVA (7.2 kW)
826758	K410110000	10 kVA 32-Battery (2-high), 10 kVA (9 kW)
826759	K410120000	10 kVA 64-Battery (3-high), 10 kVA (9 kW)
826760	K410130000	10 kVA 32-Battery with Transformer Module (3-high), 10 kVA (9 kW)
826761	K412110000	12 kVA 32-Battery (2-high), 12 kVA (10.8 kW)
826762	K412120000	12 kVA 64-Battery (3-high), 12 kVA (10.8 kW)
826763	K412130000	12 kVA 32-Battery with Transformer Module (3-high), 12 kVA (10.8 kW)
826764	K415110000	15 kVA 32-Battery (2-high), 15 kVA (13.5 kW)
826765	K415120000	15 kVA 64-Battery (3-high), 15 kVA (13.5 kW)
826766	K415130000	15 kVA 32-Battery with Transformer Module (3-high), 15 kVA (13.5 kW)

#### Eaton 9170+ UPS

The Eaton 9170+ UPS delivers premium online backup power and scalable battery runtimes for server farms, networks, telecommunications, Internet service providers, and other critical applications. Leveraging a modular design, the 9170+ UPS offers N+X redundancy to eliminate system-level single point of failure. The 9170+ adapts to rapidly changing IT environments with scalable power and battery modules.

#### **Features**

- Eliminates single point-of-failure with N+X power and logic redundancy
- · Conditions incoming power without depleting the battery to preserve battery power for complete power outages
- . Grows with changing IT environments by incorporating scalable design of 3 kVA power modules and batteries
- · Quickly collects information on critical parameters with an intuitive LCD screen
- Free monitoring, management, shutdown software (Intelligent Power® Software Suite)





CSC PART NO.	MFR. PART NO.	DESCRIPTION
874221	PW3S3K	Eaton 9170+ 3 kVA (PW3S3K-LPD) UPS
947829	PW6S3K	Eaton 9170+ 3 kVA (PW6S3K-LPD) UPS
820943	PW6S6K	Eaton 9170+ 6 kVA (PW6S6K-LPD) UPS
947830	PW6S9K	Eaton 9170+ 9 kVA (PW6S9K-PD) UPS
874224	PW9S9K	Faton 9170+ 9 kVA (PW9S9K-PD) LIPS

CSC PART NO.	MFR. PART NO.	DESCRIPTION
947821	PW12S9K	Eaton 9170+ 9 kVA (PW12S9K-PD) UPS
820942	PW12S12K	Eaton 9170+ 12 kVA (PW12S12K-PD) UPS
820941	PW12S15K	Eaton 9170+ 15 kVA (PW12S15K-PD) UPS
947820	PW12S18K	Eaton 9170+ 18 kVA (PW12S18K-PD) UPS

#### Eaton 9355 UPS

The Eaton 9355 UPS combines advanced technology with uncompromised efficiency, superior reliability, and installation flexibility. Today's data centers, communications and network control centers, as well as process control applications, will benefit from increased uptime when incorporating this advanced UPS into their power chain.

#### Features

- Provides more real wattage in less space with a 0.9 power factor, protecting more equipment and leaving more room for expansion
- Provides a 0.99 power factor and generator friendly, less than 5% total harmonic distortion using an active IGBT rectifier to control the input power factor
- Ensures data and system integrity with a complete power management software package for remote monitoring, management, and shutdown over the network and Internet
- Supports Eaton Hot Sync paralleling of multiple modules for redundancy or extra capacity
- Significantly increases battery life through ABM technology

CSC PART NO.	MFR. PART NO.	DESCRIPTION
826767	KA1011100000010	10 kVA 9 kW, 8 Minutes of Full Load, 22 Minutes of Half Load Runtime
826768	KA1012100000010	10 kVA 9 kW, 22 Minutes of Full Load, 52 Minutes of Half Load Runtime
826773	KA1511100000010	15 kVA 13.5 kW, 4 Minutes of Full Load, 13 Minutes of Half Load Runtime
826774	KA1512100000010	15 kVA 13.5 kW, 13 Minutes of Full Load, 32 Minutes of Half Load Runtime



# STAY UPDATED ON THE LATEST GOVERNMENT TECHNICAL WHITEPAPERS!



### Media Release For immediate release

February 21, 2011

### Future Fibre Technologies Wins Military Physical Network Security Contract

Future Fibre Technologies (FFT), the world leader in fiber optic intrusion detection, has been awarded another contract for the physical protection of highly sensitive communication and data networks at a US military facility.

Utilizing the FFT Secure Link™ system as an "alarmed carrier" Protective Distribution System (PDS), this installation will protect SIPRNET data links between facilities against illegal interference or data tapping, as well as unauthorized physical disturbance. SIPRNET is the high-security network used by the US Military and State Department for transmission of secret communications.

According to Emmett McGrath, Secure(IT) Manager for CSC/Wesco, "The FFT solution is perfect for metropolitan networks or military networks that require real-time notification of intrusion attempts." McGrath adds "Secure Link is a cost-effective alternative to conducting periodic visual inspections and provides real-time notification of the precise location of intrusion attempts. The system eliminates the need for expensive alternatives such as metallic or concrete raceways, welded connections, or even the need to lock down manbloc covers."

This new contract comes on top of the recent sale to a large Asian telecommunications carrier of an Secure Link $^{TM}$  system to protect critical data cables. This Asian telecommunications carrier has installed a number of FFT Secure Link $^{TM}$  systems in recent years, with discussions underway for FFT to provide intrusion proof systems to protect additional sensitive military networks in Asia.

FFT continues to build its impressive record of success and global experience in protecting sensitive government, military and commercial data and communications infrastructures against both deliberate and accidental damage.

These clients recognized the advantages of the FFT Secure Link<sup>TM</sup> system including its high performance, flexibility of its overall design, regional technical support capability and FFT's global experience were the critical winning factors.

For more information please visit www.fftsecurity.com

10 Hartnett Close, Mulgrave Victoria, 3170. Australia. ABN 67064 089318

Fax: +61(0)3 9560 8000

Website: www.fftsecurity.cor

Qualif Endorse Compar Visit www.gocsc.com/SecureIT to keep up to date on the latest government technical whitepapers or contact your local CSC Representative for more information!



people. passion. expertise.



### WHAT IS INFORMATION ASSURANCE (IA)?

#### INFORMATION ASSURANCE UNIVERSITY

GENERAL DYNAMICS
C4 Systems

#### **Defense in Depth**

- . "So how does IA deal with all the threats and goals?" One part of that answer is Defense in Depth (DiD)
  - The U.S. Government<sup>1</sup> defines Defense in Depth as "IA strategy integrating people, technology, and operations capabilities to establish variable barriers across multiple layers and dimensions of networks."
- Defense in Depth is the "onion layer" method... penetrate one layer of security, and there is another. Penetrate that layer, and there is yet another layer of security. Also, alternate the IA mechanisms... if someone knows how to penetrate one type of defense, they may not know hoe to penetrate another type of defense at another layer
- · Notice the three areas mentioned above that match our broad classes of security from the very first slide:
  - DiD's People = Security Personnel
  - DiD's Technology = Security's Technical
  - DiD's Operations = Security's Physical plus Security's Policy

### IA is More Than Just Technology

- IA includes the following elements that keep the information security system up and running on a daily basis:
  - Design: IA includes designing the protections for information, networks, computers, and applications using ALL possible defenses... not just the technological defenses
  - Operate: Your information needs ongoing "surveillance" against the 1000s of daily attacks and the 10s of new attacks monthly. IA has an active element that provides on-going defense:
    - Protect: IA provides the persons and tools that guard, protect, and administer the security for your systems and networks
    - Detect: IA provides the persons and tools that monitor systems and networks for inappropriate activities
    - React: IA provides the persons and tools that automatically and manually react to inappropriate activities
  - Maintain: IA provides the persons and tools that securely maintain, patch, and upgrade your IA defenses, your networks, and your systems

<sup>1</sup> From the US Government's National Information Assurance Glossary

For more information on Information Assurance University, contact your local CSC Representative.

Courtesy of infoassuarnceu.com

people. passion. expertise.









# Top Secret, Acronyms & Index

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By Communications Supply Corporation

www.gocsc.com/secureIT





### WHAT IS TOP SECRET AND SECURITY CLEARANCE?

#### What is SECRET?

You will often hear the government team; as well as contractors, vendors and end- user customers refer to networks as **SECRET**.

Terms such as **Secure, Sensitive** and **Classified** are used to describe networks that transmit information classified as **SECRET**.

Just what is **SECRET** and what are the different kinds of SECRET classifications?

This paper discusses the word **SECRET** and the terms used to define it as it pertains to the *Federal Government, Intelligence Agencies* and the *Department of Defense.* 

#### se-cret \'se-krat\

For our purposes we define the use of **SECRET** as follows:

 Containing information whose unauthorized disclosure could endanger national security.

No person may have access to classified information unless that person has been determined to be trustworthy and unless access is essential to the accomplishment of lawful and authorized Government purposes, that is, the person has the appropriate security clearance and a need-to-know.

Information or material that requires additional protection against unauthorized disclosure in the interest of national security is classified in one of three designations namely: *Top Secret, Secret or Confidential*. Layered on top of these three categories are at least nine additional protection categories.

You do not need to know all of these additional categories — you only need to know if the information or material is classified in one of the following categories:

- CONFIDENTIAL: (C) this means that one could reasonably expect that the disclosure of this information to unauthorized persons or institutions could be expected to cause Damage to national security.
- 2. **SECRET: (SC)** this means that one could reasonably expect that the disclosure of this information to unauthorized persons or institutions could be expected to cause Serious Damage to national security.
- 3. TOP SECRET: (TS) this means that one could reasonably expect that the disclosure of this information to unauthorized persons or institutions could be expected to cause Grave Damage to national security.



#### What is a Security Clearance?

- A Security Clearance is a determination that a person is eligible for access to classified information.
- Need-to-know is a determination made by a possessor of classified information that a prospective recipient, in the interest of national security, has a requirement for access to, or knowledge, or possession of the classified information in order to accomplish lawful and authorized Government purposes.

#### Who Requires Security Clearance?

Anyone who wishes access to classified information:

- CONFIDENTIAL requires Confidential Clearance
- SECRET requires Secret Clearance
- TOP SECRET requires Top Secret Clearance

The Military does things differently: clearance is given to individuals according to their **Job Rating** (MOS/AFSC/Rating) and can be associated with Individual Assignments.

Many customers who work and spend much of their time in the world of **National Security** will often use many terms and acronyms to describe information as classified. Although many of these terms apply to **Additional Protection Categories**; they are still covered under the term **Top Secret**.

In an attempt to provide you with some useful knowledge of these **Additional Protection Categories** and to assist you in better understanding the language of **National Security**, we have provided some useful terms, common descriptions and acronyms currently in use.

- Special Access Program (SAP) is any program which imposes need-to-know or access controls beyond those normally required for access to Confidential, Secret, or Top Secret information.
- Extremely Sensitive Information (ESI) is information and material related to the Single Integrated Operational Plan for the conduct of nuclear war fighting operations.
- Sensitive Compartmented Information (SCI) is information and material that requires special controls for restricted handling within compartmented intelligence systems and for which Code Word compartmentation is established.
- Limited Dissemination (LIMDIS) establishes measures for the protection of information beyond those involving access to classified information per se, but not so stringent as to require the establishment of a Special Access Program.

Remember that, although these systems are complicated and filled with many different terms, sometimes describing the same level of classification; you will always be correct to use *Confidential, Secret and Top Secret* as terms for discussion.

#### Sources:

"Pentagon Devises New Classification Scheme for Defense Documents," Defense Week, 29 October 1983, page 12.
Joint Security Commission, Redefining Security, 1994, pages 7-8.
Department of Defense, Office of the Secretary, "Information Security Program Regulation," 32 CFR Part 159a, DoD 5200.1-R, Federal Register, Vol. 54, No. 122, 27 June 1989, page 225958 et seq.





### COMMONLY USED GOVERNMENT ACRONYMS AND CONTACTS

#### Commonly Used Acronyms:

**BPA** - Blanket Purchase Agreement

**COTS** - Commercial off the Shelf

CTTA - Certified TEMPEST Technical Authority

C4ISR - Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance

**DITY** – Do-It-Yourself (Personally Procured Mover Program)

**EMSEC** – Emanations Security

IA - Information Assurance

IDIQ - Indefinite Delivery/Indefinite Quantity

JITC - Joint Interoperability Test Command

JWICS - Joint Worldwide Intelligence Communications System

MPI - Message Passing Interface

NIAP - National Information Assurance Partnership (NSA)

NIPRNET - Non-Classified Internet Protocol Router Network

PDS - Protected Distribution System

Red/Black Separation - Classified and Unclassified networks are 100% independent and do not cross-over.

SCADA - Supervisory Control and Data Acquisition

SCIF - Sensitive Compartmented Information Facility

SIPRNET - Secure Internet Protocol

### Who to Contact on bases for Government/Secure(it) Opportunities?

- Network
- Telecommunications
- Operations
- Facilities
- Information/Cyber-security
- Information Management
- Chief Technology Officer
- Chief Information Security Officer
- Information Assurance Officer
- Certified Tempest Technical Authority
- Chief Procurement Officer
- Chief Information Officer
- Operations Head
- IT Security Analyst
- Network Security Engineer









NIPRNET SIPRNET JWICS PDS SOLUTIONS INFORMATION ASSURANCE OF OPERATIONS **CRITICAL INFRASTRUCTURES NIPRNET** SIPRNET JWICS SCIF PDS SOLUTIONS **INFORMATION ASSURANCE CONTINUITY OF OPERATIONS** CRITICAL INFRASTRUCTL PDS SOLUTIONS **INFORMATION ASSURANCE** SCIE CONTINU CRITICAL INFRASTRUCTURES **OPERATIONS** NIPRNET SIPRNET **JWICS** SCIF PDS SOLUT

**INFORMATION ASSURANCE** 

**CONTINUITY OF OPERATIONS** 

CRITICAL INFRASTRUCTURES

NIPRNE

SIPRNET

JWICS

SCIF

PDS SOLUTIONS

**INFORMATION ASSURANCE** 

CONTINUITY OF OPER

PHYSICAL

**NETWORK** 

SECURITY

**INFRASTRUCTURE** 

SOLUTIONS

gocsc.com







Avocent, a Division of Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling Business-Critical Continuity™ from grid to chip. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, infrastructure management, and connectivity. Avocent solutions simplify data center infrastructure management by maximizing computing capacity and lowering costs, while enabling the data center to operate at peak performance. In addition, Avocent is the industry leader of secure KVM technology.

Data Center Management	
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Axis is an IT company offering network video solutions for professional installations. The company is the global market leader in network video, driving the ongoing shift from analog to digital video surveillance. Axis products and solutions focus on security surveillance and remote monitoring, and are based on innovative, open technology platforms.

#### Physical Security

Cameras	129–137
Electronics	137
Video Equipment/Software	138

### BELDEN

Belden, a US-based company, has led the industry for over a century in the design, manufacturing, and marketing of cable, connectivity, cable management, and networking products. Belden's Solutions are quality built, offering the government market exceptional value, and superior flexibility and modularity. Government and military agencies operating around the globe depend on Belden Solutions to protect lives and support classified communications in a wide range of mission-critical applications and environments, including data networking, video, sound and security, industrial automation, aerospace and defense. Belden has manufacturing capabilities in North America, Europe, and Asia and a worldwide market presence.

#### Connectivity

Fiber Optic Connectors — Field Installable	71
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Patch Panels — Copper	12
Workstation Access	
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Berk-Tek, a Nexans Company, opened its doors in 1961 to service the needs of the US Navy by supplying the "wet wire" for sonobuoys, vital for national security throughout the Cold War. Since then, Berk-Tek has developed an organization that combines focused engineering with the global resources of Nexans to provide customers with cables that guarantee an extra margin of performance and convenience. Today, Berk-Tek is a leader in the industry with advanced copper and fiber cable for LAN, SAN, data center, security, and outside plant applications.

#### Fiber Optic/Copper Cable Factory-Terminated ......58 Fiber Optic Cable ......31–34 UTP/FTP Copper Cable ......46–48 Red/Black Equipment Room Modular Pre-Terminated Systems — Fiber ......22–23

### COMMSC PE

CommScope provides essential infrastructure that makes communication possible. They empower people to connect and communicate seamlessly where, when, and how they choose. Their solutions and services for wired and wireless networks enable high-bandwidth data, video, and voice applications everywhere — at home, at work, and on the go.

#### Connectivity

75	Copper Jacks/Patch Cords
64–65	Keyed/Fiber Connectors
73	Lockable Fiber Optic Patch Cord Kit
	Fiber Optic/Copper Cable
62	Factory-Terminated
49	UTP/FTP Copper Cable
	Red/Black Equipment Room
8	Enclosures — Fiber
17–18	Infrastructure Management

#### CORNING

LANscape Solutions for Security Applications — You need security, scalability, and fast deployment. In, out, done. With more than 25 years of meeting the unique needs and requirements of the federal government, Corning Cable Systems understands that information integrity and security remains a top priority. Corning Cable Systems offers thoughtfully designed, secure solutions that minimize the risk of network eavesdropping via unauthorized access, while ensuring fast installation and minimal down time. Why choose an optical fiber solution? Superior performance, ease of installation, unmatched security, easy to upgrade, and a smaller footprint.

#### Connectivity

Fiber Optic Connectors	72
Fiber Optic Patch Cords	73
Keyed/Fiber Connectors	66
Fiber Optic/Copper Cable	
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Fiber Optic Cable	35–38
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Eaton Corporation is a diversified power management company with 2010 sales of \$13.7 billion. Celebrating its 100th anniversary in 2011, Eaton is a global technology leader in electrical components and systems for power quality, distribution and control, hydraulics components, systems and services for industrial and mobile equipment, aerospace fuel, hydraulics and pneumatic systems for commercial and military use, and truck and automotive drivetrain and powertrain systems for performance, fuel economy, and safety. Eaton has approximately 70,000 employees and sells products to customers in more than 150 countries.

	Data Center Management
144–147	Data Center Power
	Emergency Power
150–152	Uninterrupted Power Supply

### 

20 years of assembling custom fiber optic solutions, offered exclusively through CSC. You can trust Fibertron to meet your most challenging point-to-point cabling needs. In performance, configuration, labeling, and packaging, Fibertron has earned its stripes and has prestigious industry certifications in virtually every major marketplace to prove it. Your assemblies are designed and built to your needs and specifications, ensuring a precise installation every time. Fibertron's clean work environment employs highly skilled and trained technicians who know the ins and outs of every connector... every fiber... every cable.

Fiber Optic/Copper Cable
Factory-Terminated60
Red/Black Equipment Room
Modular Pre-Terminated Systems — Fiber27



Established in 1994, Future Fibre Technologies (FFT) is a world leader in laser-based fiber optic intrusion detection technologies, providing highly intelligent and reliable intrusion detection solutions for sensitive data communications paths, perimeter fences, and buried pipeline. Using fiber optic cables as a sensor, FFT requires no electronics and no power in the field. This patented technology is installed in some of the most hostile environments on the planet, protecting military bases, airports, petrochemical plants, oil refineries, critical infrastructures, and high-value assets from unauthorized intrusions.

Secure Network Solutions
Alarmed Carrier PDS114
Fiber Optic Perimeter Security System115
Pipeline Security Monitoring System115

#### **GENERAL DYNAMICS**

C4 Systems

Based in Scottsdale, Arizona, General Dynamics C4 Systems employs approximately 11,000 people worldwide and is focused on the development, design, manufacturing, and integration of secure communication, information, and technology solutions.

Secure Network Solutions	
Secure Phone	117–118



Holocom®, a veteran-owned small business, is an industry leader in protective distribution systems (PDS) for National Security Information (NSI) networks, including SIPRNet. Backed by extensive experience in NSI compliance, Holocom and its worldwide industry partners have installed more than 40,000 operational classified network user drops. Holocom is committed to ensuring project success. This includes FREE Holocom PDS QA training for government IA representatives and FREE PDS design, bill of material (BOM), and labor estimates. Holocom also offers "bundled solution" specifications for projects in the early design phases, including SIPRNet Café and projects for specific user counts. All products made in the USA.

	Pathway & Enclosures
80–83	PDS Raceway/Boxes
	Secure Network Solution
108	Specialty Products

### **la legrand**

#### **Ortronics**

Legrand I Ortronics, headquartered in New London, Connecticut, USA, is a global leader in high-performance network infrastructure solutions, offering a complete range of Category 5e, 6, and 10 Gig copper, fiber optic, and residential/MDU connectivity solutions, as well as Layer Zero™ physical support solutions.

Connectivity	
Copper Jacks/Patch Cords	75
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### **La legrand**®

#### Wiremold

Founded in 1900 and headquartered in West Hartford, CT, Legrand/Wiremold offers one of the industry's most complete lines of wire and cable management solutions. These include perimeter raceway, infloor, open space, and energy management systems. Legrand/Wiremold also manufactures power and data quality products and — with its sister company, Ortronics — offers a full line of integrated data/communications connectivity. In 2006, Legrand/Wiremold launched its Data-Fense™ Secure Raceway System with a full range of secure pathway solutions.

	Pathway & Enclosures
84–90	PDS Raceway/Boxes
	Workstation Access
98–99	Faceplates/Outlets









Leviton Network Solutions is a division of Leviton Manufacturing, Inc., founded more than a century ago and now North America's leading maker of electrical and electronic devices. The Network Solutions division produces network infrastructure systems for the government market, including secure connectivity for mission critical networks including SIPRnet and JWICS, and plug-n-play pre-terminated solutions. In addition, the division's copper, fiber, and power solutions include a comprehensive selection of structured cabling systems, enclosures and panels, rack PDUs, and much more. Leviton products are engineered and manufactured inhouse to exacting standards and offer guaranteed performance.

#### Connectivity

Copper Jacks/Patch Cords	76
Keyed/Fiber Connectors	67
Keyed/Copper Connectors	70
Fiber Optic/Copper Cable	
Factory-Terminated	61
Red/Black Equipment Room	
Fiber Enclosures/Adapters	11
Patch Panels — Copper	13–15



Market Central has been engineering and manufacturing Layer 1 optical switches for the last 25 years to provide customers with the most secure access control and the most reliable server fail-over and system backup. For customers like IBM, NASA, and ABB, Market Central switch solutions provide added protection and recovery options when firewalls are penetrated, potent new viruses attack, and servers fail. Market Central's Communications Hardware Foundry constantly creates customengineered and manufactured hardware solutions for advanced applications — applying unique technologies and Market Central's years of expertise to meet the demands of present and future applications.

Secure Network Solutions	
Network Switches	116



### **MOHAWK**

For over 50 years, Mohawk has been providing advanced cable solutions for government applications. Mohawk's high-performance copper, fiber optic, and special application cables meet your data networking, video, sound, and security needs, as well as provide a flexible and warranted option for government installations. Their "open architecture" standard incorporates the ANSI/TIA-568-C document by offering Mohawk cable along with your choice of connectivity. With the addition of a Mohawk Accredited Contractor (MAC) for installation, your project is covered by the ChannelMATE extended protection warranty. This "freedom-of-choice" provides a cost-effective option to restrictive and costly end-to-end solutions.

Fiber Optic/Copper Cable	
Fiber Optic Cable	39-40
UTP/FTP Copper Cable	49–54

### Network Integrity

We Bring Security To Light™

Network Integrity Systems' INTERCEPTOR™ Optical Network Security System, an alarmed protective distribution system (PDS), provides physical security of unencrypted classified networks operating up to the TS/SCI level. Approved by all services, INTERCEPTOR offers substantial benefits over encryption and hardened carrier, including lower cost, full bandwidth utilization, the potential to eliminate visual inspections of the PDS, and greater security and scalability. Today, when facilities demand thousands of secure connections, the legacy methods of network infrastructure security security in the potential carrier, encryption) are costly and present operational challenges when deployed in such dense numbers. Interceptor, especially when deployed with flexible interlocking cable, overcomes these challenges and enables a rapid pace of SIPRNet rollouts.

#### Secure Network Solutions

104–106	Network Security System
107	Remote Termination Un
107	Rack Mount Alarm Unit
108–111	Specialty Products

### PANDUIT<sup>®</sup>

Panduit is a global, world-class developer and provider of leading-edge solutions that help governments optimize the physical infrastructure through simplification, agility, and operational efficiency. Technology, combined with customer collaboration, is the driving force behind solutions development at Panduit. They apply the latest research and development technologies with application expertise and strategic alliances to help governments manage risk within the physical infrastructure. With converged and interoperable technologies, Panduit solutions enable green performance and result in reduced capital and operational expenses.

#### Connectivity

Copper Jacks/Patch Cords	77–78
Fiber Patch Cords	
Keyed/Fiber Connectors	68–69
Fiber Optic/Copper Cable	
UTP/FTP Copper Cable	55
Pathway & Enclosures	
Surface Mount Raceway	
Zone Boxes/Enclosures	91–92
Red/Black Equipment Room	
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Modular Pre-Terminated Systems — Copper	28
Patch Panels — Copper	15
Power over Ethernet	16
Vorkstation Access	
Faceplates	99
Lock-In/Blockout Devices	99_100







Superior Essex, a global leader in the design, manufacture, and supply of wire and cable products, has a long and reputable history of providing comprehensive solutions for government agencies — ranging from the Pentagon to Fort Anaconda to NASA. Our knowledge of cable designs and government applications provides a competitive advantage in a market that expects cable technology to keep pace with the evolution of the overall network. Additionally, our trained and knowledgeable team of technical support specialists is dedicated to helping you with your next government-related project.

#### Fiber Optic/Copper Cable Fiber Optic Cable ......41–43 UTP/FTP Copper Cable ......55–57



Transition's products bridge the gap between legacy copper infrastructures and fiber expansion. As a result, they can cost-effectively extend the life of non-fiber based equipment while also expanding the distance of your existing network. From retail theft prevention to corporate identity access to law enforcement, the demand for video security and access control applications has increased exponentially in the past decade. The technology to support these applications has advanced as well. Work to stop network vulnerability by securing your network with a fiber infrastructure using one of Transition's media converters, PoE devices, or extended temperature products.

Physical Security	
Media Converters	128
Red/Black Equipment Room	
Power over Ethernet	17
Workstation Access	
NIC Cards/SFPs	101

#### TRUSTED SYSTEMS

Established in 1986, Trusted Systems, Inc. is the founder and industry leader in the development and deployment of the IPS Container. It's an all-american "active duty" company focused on supporting those who defend our national security and freedoms. A market- and mission-driven company, Trusted Systems strives to create the highest-performance solutions that enable secured controlled access to classified networks worldwide. This is achieved with a broad-based pool of engineering and manufacturing talent unmatched in the industry in a state-of-the-art manufacturing facility in Taneytown, MD. Each IPS Container is custom built to order and manufactured entirely in-house. Innovation, technical excellence, and quality of workmanship are what drive success at Trusted Systems as they continually advance the role of the IPS Container.

#### Secure Network Solutions

Intrusion Protection System	113
IPS Containers	112
Specialty Products	111



With a 50-plus year history of leadership, TE Connectivity is a global provider of engineered electronic components for thousands of consumer and industrial products, network solutions and systems for telecommunications and energy markets, undersea telecommunication systems, and specialty products. We design, manufacture, and market products for customers in a broad array of industries including automotive, data communication systems, and consumer electronics, telecommunications, aerospace, defense and marine, medical, energy, and lighting.

d/Black Equipment Room	Red/Black Equipment F	Red/Black Equipment Room	quip	ed/Black Ed	Red
Infrastructure Management20	Infrastructure Mana	 Infrastructure Managemen	ctur	Infrastru	
cure Network Solutions	Secure Network Solution	Secure Network Solutions	ork/	cure Netw	Sec
Specialty Products	Specialty Products	 Specialty Products	y Pro	Specialty	





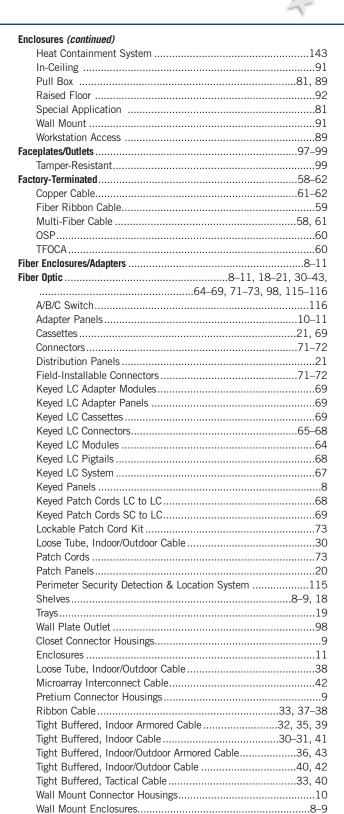


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Analog CCTV Video Copper to Fiber Media Converter	
Blockout Devices	
LC Duplex Adapter	
RJ45 Jack	
SC Duplex Adapter	
Cabinets — Wall Mount	
Cable30-	
Belden Classics	, ,
Category 5e	
Category 5E 4-Pair F/UTP	
Category 5e 4-Pair F/UTP	
Category 5e 4-Pair UTP	
Category 5e 4-1 all 011	
Category 5e Middor/Outdoor Cable	
Category 6	
Category 6 4-Pair F/UTP	
Category 6 4-Pair UTP	
Category 6 Enhanced	
Category 6 Enhanced 4-Pair F/UTP	
Category 6 Enhanced 4-Pair UTP	
Category 6 Indoor/Outdoor Cable	
Category 6 Outdoor	
Category 6 Outdoor	
Category 6A 4-Pair STP	
Category 6A 4-Pair UTP	
CATV Coax	,
CATV Twinax	
CCTV Coax	
Factory-Terminated, Copper	
Fiber Optic	
Low-Voltage Cables	
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Dome	
PTZ	
Thermal	
Cassettes — Fiber Optic	
Category 5E	
4-Pair F/UTP Cable45	, 40–49, 55, 57 40, 52, 57
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4-Pair UTP Cable	
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4-Pair UTP Cable	
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Modular Jacks	
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Enhanced Cable	,
Indoor/Outdoor Cable	
Modular Jacks	
Outdoor	
Outdoor Cable	
Patch Cords	
Patch Panels	,
Category 6+	
Patch Panels	
Category 6A	
4-Pair STP Cable	
4-Pair UTP Cable	, ,
Modular Jacks	, ,
Patch Cords	,
Patch Panels	
CATV Coax Cables	
CATV Twinax Cables	
CCTV Coax Cables	
CCTV Video Copper to Fiber Media Converter	
Connectivity	
Copper Jacks/Patch Cords	
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Media Converters	
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Category 6A	
Keyed Copper	
Shielded	
Modular Pre-Terminated Systems/Copper	
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AngleFlex	,
BIX	
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Category 6	
Category 6+	
Category 6A	
<u> </u>	
Fiber Optic	
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Modular	
Power over Ethernet	
Shielded	- , -
Ultra Composite	
Zero-U	
Pathway & Enclosures	
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746541	11			83775		798	81828	717
746759				849723, 3	4 /9818	098		847
746760		769790		85113	4 /9818	298	81902	
746761		770989		85143			81905	3144
746762	45	//198/	34 78	85173	4 /9818/ 1 7000E/	498	019Z1	152 241
746768	44	772500	31 78	85765 91384	) 7000c	996 796		611
746769	44	772509	34 789	91444	2 / 3020 2 70222	796 396	81975	667
746770 746771	44 11	7726/11	34 78	92104	2 79279i	) 10E	82000	046
747718	<del>44</del> 22	772643	34 78	92134	3 79872	0	02001	.1 152
747716		772644	34 79	03074	1 79887	1	82094	2
748102	9	772647	34 79	11375	4 80033	9	82094	3152
748448	138	772649	34 79	1637 A	3 80034	115	82105	7
748531	35	772655	31 79	16394	3 80034	315	82119	9150
748532	35	772803	32 79	1639	6 80044	1 100 1 41 9 15 1 15 3 15 5 34	82120	0150
749273	52	772804	32 79	17177				420
750037	51	772844	32 79	23497	7 80075	6	82125	520
750136	39	772848	32 79:	23507	7 80084	467	82142	546 646
750137	39	772849	32 79	28564	1 80128	934	82147	b46
750138	39	772850	32 793	37819	/ 80144	۷ <u>1</u> 4	82148	457 441
750884	22	772874	23 793	37859	/ 80247	y7 <u>6</u>	82193	441
751205	35	772946	31 793	37869	/ 80255	y	82210	8
751888	50	772000	31 79: 31 79:	37879 38578	/ 8UZbl	776	0ZZJ1	276 876
751906	5ქ	772010	31 79. 31 79.	วอ <i>ว /</i>	3 0UZ941 1 90/100	υ/∠ Λ 1⊑	02231 82282	о/b Л 67
751995 751996		773018 773010	31 /9 <sup>2</sup>	4022	1 004004 8 80480	J 25	82202	4
751996		773013	31 79 31 79	719212 Д79Д 1	6 204031	021 1	82315	9 82
751997	50 50	773088	31 79	4794	2 80514	7	82339	661
752445	50 51	773089	31 79	54777	7 80552	614	82343	047
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### 824128 — 865106

02/120	40	828285	49	830270	46	8/19358	147	856862	18
824128 824628	40 18	828288	49 49	830273	46		144		18
825274	150	828290	49	830287	46	849539	17	856866	18
825451	22	828291	49	830295	46	849731	21	856867	18
825583	17	828372	57		46	850006	150	857328	43
826206		828375	57	831145	41	850022	144 151	85/400.	106
826575 826578		828455 828602	18	83114b 921455	41	850050	151		47
826579		828603	101	833860	146	850057	151	857904	133
826582	46	828604	101		146	850059	151	857942	51
826585		828605	101	833862	146	850061	151	858407	45
826587		828611	18	834454	74	850155	96		82
826591		828612	18	834/23	138	8502/5	146	858/86	78
826593		828919 828925	bl	835391	12 12	85049Z 950716	65 76	0000/0 850260	54 17
826741 826742	151	828930	61		47	850732	74	859275	146
826750	151	828935	61		96	850733	74	860009	17
826751	151	828940	61	837894	22	850735	12	860010	17
826754		828947	61	837929	55	850739	12	860015	17
826755		828952	61	838562	11	85081/	24 18	860094	14 146
826757 826758		828957 828961			11 11	851639	92	860410	78
826759		828965		838580	150	851915	50		24
826760	152	828970	61	838662	12	852294	14	860660	35
826761	152	828975	61		43		55	860661	35
826762	152	828982	61	839279	43	852608	13		97
826763	152	828987	61		22	გნეშე გნეშეშე	92 42		133 151
826764 826765	15Z 152	828988 829073	bl 61	033341 8393/13	22 22		22		68
826766		829102	61	839392	13	854141	64	862580	74
826767	152	829109	61	839738	134	854144	64	862668.	147
826768	152	829119	61	839746	134	854145	64	862775	14
826773	152	829128	61		13	854146	64	862//8	14 14
826774	152	829144	61		13 12		128 92	862//9	14
827043 827117	91	829149 829159		040400 8/11293	12	85/1/77	97	862979	21
827192		829164		841554	47	854533	13	862989	97
827193	33	829170	61	842402	74	854731	17	863564	142
827195	33	829294	30		97	854832	41	863790	55
827196	33	829295	30	842457	97	855303	13	863792	55 55
827198	33	829296	30	842458	12	855384	35 35	863/93	55
827199 827201		829297 829298	30 30		76		35	863797	55 55
827202	33	829299	30		131	855393	35	863880	55
827204		829300	30	843174	19	855403	37	863883	55
827206	33	829301	30	843175	19	855409	37	863885	55
827207	33	829302	30	843177	19	855837	136	863886	56
827208	33	829303 829304	30	8431/8	19 19	856286 856287	134	863880 863880	56 56
827358 827359	41 //1	829305	30		77	856288	134	863891	56
827361		829306	30	843459	138	856290	134	864130	24
827362		829307	30	843487	137	856292	134	864132	24
827364		829308		843868	72	856293	134	864135	24
827366		829326		8454/8	23	856295	134	864136	24 24
827369 827370		829328 829329			41		134	864936	40
827372	41 //1	829330	30 30		41		134		35
827374	43	829340		845497	41	856299	134	864968	35
827376	43	829341	30	845498	41	856300	134	864971	35
827378		829342	30		41		100	8649/7	35
827380	43	829343	30	84633/ 846814	42	გენპ/4 გეგვაცი	82 82	86/1020	35 35
827382 827383	43 //2	829390 829896	30 43	040014 847067	76 132	856649	80	864981	35 35
827386	43 43	829905	34	847068	132	856657	80	864982	
827391	43	829912	30	847069	132	856704	80 82	864983.	
827400	43	829914	30	847073	132	856/08	83	864984	35
827401	42	829915	30	84/583	130	856/29		864985	35
827402	42	829916 829917	30	848129	147	000/34 856725	۱۵ 12	00430/ 86/1088	35 35
827862 827864	91 Q1	829918	 30	848163	12	856/39	XI	864989	35
827905	46	829919	30	848417	97	856741	81 81 18 18	864990	35
827906 827907	46	829920	30	848422	97	856752	81	864991	
827907	46	829921	30	848559	47 136	856780	18	864992	35
827909	46	829922	30	848642	136	856/81	18	864993	35 72
828119	4/ 1//	829923 829934		6491/2 8/19198		Ა ᲐᲥᲜᲐᲡ1 ᲒᲐᲜᲒᲐᲡ३	18 18	865090	72
828267 828268	144 144	829935	 30	849239	43	856809	18	865100	72
828272	144	829936	30	849240	43	856811	18 18	865101	72 72 72
828273	144	829937	30	849241	43	856820	18	865102	72
828275	46	829938	30	849242	43	856823	18	865103	
828276	46	830203	46	849243	43	856824	43	8h31U4	1/
828278	46	830221 830277	46	849244 84024F	43	856860	18	865106	72 72
828282	49	030277	40	043243	43	050000	10	505100	1 Δ







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865113	12						0400	05 70
865114	/2	869241		'365		6143	9465	0570
865115	72	869242	77 8752	065	88205	7143	3 9465	0670
865116	72	860313	77 8754	1423	88205	8143	9472	800
		003243		/4ΔJ	00203	0	7 0472	04146
865117	/2	869244		1765	88226	0137	94/3	04140
865118	72	869245	77 8757	132	88257	222	9474	2823
			77 8757	7133	88346	9146	9/17/	2923
865119					00040	J140	0474	20
865120	72	869247	77 8757	88133	88399	3134	94/4	3023
865121		8692/18	77 8757	133	88403	267	7 9474	3123
000121	70	000240		133	00100	567	7 0171	3223
865123	1 Z	869249	77 8757	14155	00403	Öö	3474	JZZJ
865124	72	869250	77 8757	95132	88462	637	/ 94/4	3322
865125		869251	77 8758	2132		210	9474	3422
		003231	// 0/30	12132	00000			
865127	24	869252	77 8758	3132	88302	710	94/4	3522
865128	24	869253	77 8758	132	88514	3100	) 94/4	3623
865134	2/	860254	77 8758			0106		3723
					00020	T 120	0.474	3823
865135	24	869255	77 8759	021	88023	5138	94/4	3023
865138	24	869256	77 8765	i9135	88528	3129	94/4	39
865140		860257	77 8765	0135	88528	6	9474	.40 75
		000207	77 0705		00020	7 100		4123
865141		869258		51132	88028	7129	94/4	4123
865142	25	869259	77 8765	52137	88528	8129	94/4	4223
865143		869260	77 8775	3136	22522	9129	9474	448
			77 0775	74	00020	0	0171	458
865144		869261	77 8775	274	00029	J123	94/4	
865885	22	869262	77 8776	674	88555	8151	94/4	468
865978				574	88557	2 6 <sup>1</sup>	9474	478
			11 0//3		00007		0474	488
865980		ŏb9Zb4	77 8779	322	88281	965	94/4	+08
866184	74	869265	77 8780	940	88614	3135	94/4	5064
867216	1//	869266	77 8781		88614	4135	947/	5164
		003200		104	00014	T	) 0474	5264
867479				3134	<ul><li>&amp;QQQQQ</li></ul>	943	94/4	
867534			73 8782	55134	. 88631	041	9474	5364
			65 8783	1538	0/1077	265	9/7/	5464
867540		0034//	00 6/63		J40//	O	) 34/4	
868730		8694/9	65 8788		94101	3	94/4	5518
868732	11	869481	65 8789	143	94101	48	3 9474	6038
868736			65 8793	'092	94101	58	9474	6198
		000400	22 8797	467		6	0171	6298
868737					34101	U	) 34/4	02
868758	61	869955		.165	94101	78	3 94/4	63150
868774	67	869958	97 8800	5543	94117	0106	6 9474	64150
868776		970125		i653	9/121	982	9474	65150
		070123	100 0000	11	04121	0 01		
869001		8/0128		164	94122	88	94/4	66150
869002	74	870601	99 8815	8106	94122	98	94/4	67145
869003		870739	18 8815	'0106	94133	383	9474	68145
869004			18 8816			483	9/17/	69145
		070740	10 0010	.1			0474	70145
869005	/4	8/0/41		974	94133	583	94/4	/0145
869006	74	870742	18 8816	6074	94133	683	3 94/4	71146
869017		8707/13	18 8816	174	94145	365	9474	72146
		070743	10 0010	74	0/1/6	465	0/7/	73146
869020		8/0/48		5274	94143	403		
869021	97	870749	18 8816	i374	94167	88	3 94/4	74146
869022		2712/12		474	94234	88	9474	75146
003022		071242	122 0010			9	0171	76146
869023		8/1389	133 8816	574	94234	ž	) 34/4	70140
869024	97	871398	133 8816	674	94235	Ö	3 94/4	77146
869027	12	871/100	133 8817	097	94235	18	9474	78146
		071400		297	0/1206	2	9474	79146
869028		871401	133 8817	.Z9/			94/4	/5140
869133	12	871565	144 8818	1521	94235	3		80146
869166	68	871566	144 8818	21	94235	4	3 9474	81146
000170	00				94235	E (	0171	82146
869178		8/2139	147 8818	021	94233	5	34/4	02140
869182	69	872345		221	94235	8	3 94/4	83146
869184		8723/19	71 8818	321	94235	98	9474	84146
		072070	71 0010	421		3		85 147
869213		872679						00 117
869214	19	8/2817	71 8818	.521	94236	1	3 94/4	8614/
869215		872823	71 8818	621	94236	2	9474	87147
		872924		721	01236	3	9/17/	88147
869216	13	072024	/1 0010		04204	O 1 4 7	0474	89147
869217				821	94364	8145	94/4	0714/
869218	19	872826	71 8818	921	94385	678	3 94/4	90147
869219	19	872827	71 8818	021	94386	843 914	9474	91144
000210	J	072020	71 0010	2121	0///72	0 1/1	0/7/	92144
869220	<u>/ /</u>	0/2020	71 8818	.1	244/3	J143	, J4/4 - 0474	02 144
869221	//	872829	71 8818	221	944/4	Jb;	) 94/4	93144
869222	77	872987	65 8818	321	94474	165	9474	94144
869223	77	87329/	46 8818	421	9/1/72	065	947/	95144
000004	11	070204	40 0010	521	0///20	1 ~	0174	96144
869224	<u>[</u> ]		46 8818	21	344/8	165	34/4	JU144
869225	77	8/3388	65 8818	.621	94478	265	94/4	97144
869226	77	873417	147 8818	721	94479	8 6!	9474	98144
960227		972£7£	22 8818	21	0/1565	322	9/17/	99144
869227	//	0/30/3		.0	04503	D 1 A/	0475	00 144
869228	17	8/3/1/	146 8818	921	9456/	8146	94/5	00144
869229	77	873718	146 8818	21	94602	665	9475	01144
869230	77	873710	146 8820	2143	94602	86!	9475	02144
000200		0/0/13	140 0020	72143	04647	1	0175	03144
869231	//	8/3/20		4143	9464/	165	94/5	0.5144
869232	77	873721	147 8820	9143	94649	270	J 94/5	04144
869233	77	873991	49 8820	143	94649	3 70	) 9475	05144
860234		872002	49 8820	3143	94649	4 70	) 9475	0680
869234	//	070000	45 0020	143	04043	T/\	, J+/J	07
869235	77	8/3993	49 8820	5143	94649	<u> </u>	94/5	0782
869236	77	874221	152 8820	9143	94649	77(	) 9475	
869237		874224	152 8820	143	94649	5	9475	0983
		074224	17 8820	52143	04650	07(	) 0475	1082
869238		0/4/200	1/ 8820	143	34030	ا//ر	) 34/3 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	11 01
869239	17	8/4303	147 8820	4143	94650	370	94/5	1181





### 947512 — 948697

047510	01	0.47500	40	047700	C4	047010	140
947512			43		64		146
947513			43		64		146
947514	81		43		64		152
947515			43		64		152
947516			43		64		146
947517			43		64		146
947518	83	947604	43		64		147
947519	83	947605	43		64		147
947520	83	947606	43	947714	64		144
947521		947607	43	947715	64	947827	144
947523			43		64	947828	144
947524			43		64		152
947525			43		64		152
947526			42		64	947831	151
947527			42		64	9/17832	151
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947532			96		64		50
947533			96		64		52
947534			96		64		52
947535			96		64		50
947536	50		96		64		50
947537			142		64		50
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947540			142		64	947845	49
947541			47		64	947846	49
947542			65		64		49
947543			65		64		40
947544			65		64		40
947545			65		64		40
947546			65		64		92
					64		78
947547		94/042	65				68
947548			65		64		
947549			65	947742	64		100
947550			65		64		91
947551			65		64		78
947552			65		64		
947553	40		65		64		78
947554	106	947649	65		64		
947555	106	947650	65		64		78
947556	106	947651	65	947749	64		41
947557		947652	65		64	947862	41
947558			65	947751	64	947863	41
947559			65		64		41
947560	106		65		64		41
947561			65		64		41
947562		9/17657	65		64		41
947563		0/17658	65		37		42
947564			65		150		42
			65	0/17797	150		42
947565					150		42
947566			65		150		42
947567	1U/		65				
947568	10/		65		150		42
947569			65		150		42
947572	10/	947665	65		145	947875	42
94/5/3	10/		65		145	94/8/6	42
947574	107		65	94//94	145		42
947575			65		145		42
947576	107	94/669	65	94//96	145	94/8/9	42
947577	107	947670	65	94//9/	145	94/880	41
947578	107	947671	65		145		41
947579	107	947672	65	947799	145	947882	41
947580	99	947673	65	947800	145	947883	41
947581	93	947674	65	947801	145	947884	41
947582		947675	65	947802	145	947885	41
947583		947676	65	947803	145	947886	41
947584		947677	65	947804	145	947887	41
947585	28	947678	65	947805	145	947888	41
947586	78	947679	18	947806	147	947889	41
947587	03		18	947807	147	947890	43
947588	33 //1	047681	18	9/17808	147	947891	43
J47 J00	41 //1	047600	18	047000	146		43
947589		J4/UÖZ	lŏ	0470UJ	146	0/17803	43
947590	42	J4/00J	73	J4/01U	140	J470JJ	43
947591	42	J4/084	73	047011	146	J4/0J4 0/7005	43
947592	42	J4//UU	64		146	J4/0JJ	43
947593	42	94//01	64	94/813	146	34/896	43
947594	41	94//02	64	94/814	146	94/89/	43
947595			64	94/815	146		43
947596			64	94/816	146	94/899	43
947597	// 1	4/177N5	64	4 <u>/</u> 1/X1/	146	947900	43

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9486	627		 			1	16
9486							16
9486							16
9486			 				16
9486						1	14
9486							15
9486							15
9486			 		.11	<u>i</u> —1	15
9486	-		 		11.	<u>4</u> _1	15
9486							15
9486							15
J-101	001		 				.10









#### 006E81-31131-A1 — 543945 0101000

000501 01101 41	0.5	0000 041	104	10070420	47	17011 0 0001000	4.5	44048BG01	// 1
006E81-31131-A1	35	0326-041		10070439		1701LC 0061000			
006E81-31131-D1	35	0327-001	134	10071496	48	1701LC 006U1000	45	440603101	41
	25			10071930	47			44060BG01	
006E88-31131-A3		0327-041	134	10074211		1701LC 0091000	43	44000DG01	41
006E88-31131-D3	35	0328-001	133	10074212	47	1701LC 009U1000	45	440723101	41
	25	0329-001	122	10130484	16	1777041-1	20	44072BG01	// 1
006K81-31130-A1	30	0329-001	132	10130404	40	1777041-1	20		
006K81-31130-D1	35	0330-001	133	10132983	4/	1777042-1	20	440963101	41
006K88-31130-A3	25	0332-031	120	10136226	17	1829A 009U1000	128	44096BG01	Δ1
000noo-31130-A3	30	0552-051	130	10130220	47	1023A 00301000	120	441440101	41
006K88-31130-D3	35	0334-001	129	10136230	4/	1829A 0101000	128	441443101	41
006T81-31131-A1	25	0335-001	120	10136338	17	1829A 010U1000	128	44144BG01	//1
		0555-001	129	10130330	47	102JA 01001000	120	441440001	
006T81-31131-D1	35	0336-001	133	10136339	4/	1841AC 010500	128	49255-D48	14
006T88-31131-A3	25	0337-001	133	10136340	/17	1872A 0061000	44	49255-D72	14
000100-31131-A3	30	0557-001	133			10724 0001000		40055 1104	1.4
006T88-31131-D3	35	0338-004	132	10136748	4/	1872A 006A1000	44	49255-H24	14
012E81-33131-A1		0339-001		10136749	/17	1872A 0091000	11	49255-H48	14
012L01-33131-A1		0000-001	102	10100740				400FC D40	1.4
012E81-33131-D1	35	0340-001	132	10136752	4/	1872A 009A1000	44	49256-D48	
012E88-33131-A3	35	0341-001	132	10136753	Δ7	1874A 0091000	44	49256-D72	14
012L00-33131-A3	55	0040-001	100	10100700	AC	10744 0001000	4.4	49256-H24	1/
012E88-33131-D3	35	0342-001	133	10137183		1874A 009A1000	44	49200-П24	14
012K81-33130-A1	35	0345-001	133	10137384	46	1874A D151000	44	49256-H48	14
010V01 00100 M1		0010 001	122	10137385	1	1874A D15A1000		49280-QP0	15
012K81-33130-D1	35	0346-001	133	1013/303	40	10/4A D13A1000	44	43200-QI U	10
012K88-33130-A3	35	0348-001	136	10137695	46	1933152-7	20	49280-QP6	15
010/00 00100 /0	25	0349-001		10137700		1933323-1	20	49380-QP3	15
012K88-33130-D3	30			10137700	40	1333323-1	20	45500-015	1J
012KSF-T4130DA1	36	0350-001	134	10137701	46	1933324-1	20	49990-LDL	
012T81-33131-A1	25	0351-001	12/	10137703	16	1933420-2	20	49990-LSC	67
U1Z101-33131-A1	35	0331-001	134	10107700	40	1000420 2	20	40000 MADI	
012T81-33131-D1	35	0352-004	135	10137704	46	1933420-3	20	49990-MDL	b/
012T88-33131-A3	35	0353-004	135	10137706	46	1933443-1	20	49990-MSC	67
010T00 22121 P2		0000-004	122	10100000	FU	2104466 01	0.4	49990-MST	67
012T88-33131-D3	პ5	0358-001	I33	10139885	4/	2104466-01	Z4	43330-INIOI	b/
012TC8-14180-20	37	0359-001	133	10163222	46	2412 0061000	44	49990-SDL	67
012100-17100-20	07	0000 001	127	10103222	AC	2/12 006/1000	11	10000 220	67
012TWZ-T4180DAZ	38	0362-004	13/	10163780	4b	2412 006A1000	44	43330-330	<u>0</u> /
0198-004	130	0363-004	137	10167307	46	2412 0091000	44	49990-SSC49990-SST	67
0202 004	120	0200 001	120			2412 009A1000	11	49991-5LC	67
0202-004	I38	0366-001	132	10167311	40	7417 003HT000	44	+3331-3LU	0/
0202-014	138	0367-001	132	10167312	46	2413 0091000	44	49991-5SC	67
0202-024	120	0368-001	124	10167464		2413 009A1000	11	49991-5ST	67
0202-024	138	0368-001	134	1010/404	40			43331-331	07
0202-034	138	036TC8-14180-A3	37	10167476	46	2413 D151000	44	49991-LLC	6/
0202-054	120	0384-001	120	10167477	16	2413 D15A1000		49991-LSC	67
0202-034	130	0364-001	129	1010/4//	40	2413 D13A1000	44	4JJJ1-LJU	07
0202-264	138	0385-001	129	10167478	46	2700	90	49991-MLC	6/
0240-004	121	0388-001	120	10167479	46	2800	90	49991-MSC	67
0240-004	191			10107473	40	2000			
024E81-33131-A1	35	0389-001	129	10167480	46	2900	90	49991-MST	
024E81-33131-D1	35	0390-001	129	10167481	46	3-1591309-1	20	49991-SLC	67
024L01-33131-D1	55	0001 001	100			4 1501000 1	20		
024E88-33131-A3	35	0391-001	129	10167485	4b	4-1591309-1	ZU	49991-SSC	
024E88-33131-D3	35	048CC8-14131-A3	37	10167487	46	43006BG01	41	49991-SST	67
024505 14101550		040000-14101-70	20	101770000	47	4200CF001	41	4999K-9AQ4999K-WLC	
024EC5-14101D53		048EC5-14101D53	38	10170932	4/	43006FG01	41	4999K-9AQ	0/
024ESF-T4101DA1	36	048KCF-14130-20 048TC8-14180-20	37	10188830	47	43008BG01	41	4999K-WLC	67
		040100 14100 20		10100000	A.C.			4S255-S244S255-S48	12
024K81-33130-A1	35	048TC8-14180-20	3/	10189798	40	43008FG01	41	43233-324	13
024K81-33130-D1	35	048TC8-14180-A3	37	10189801	46	43012BG01	41	4S255-S48	13
024101-33130-D1		05146540 5501	1	103003266-6591 103003269-6591 103003272-6591 103003275-6591	1	420125001	41	4S256-S24	12
024K88-33130-A3		05146548-5591 05146554-5591	150	103003266-6591	150	43012FG01	41	43230-324	13
024K88-33130-D3	35	05146554_5591	150	103003269-6591	150	430183101	41	4S256-S48	13
024100-33130-23		05140554-5551	150	100000200 0001	150	420100101	41	4W256-D72	1/
024K8P-31130-29	პხ	05146554-5591US	150	103003272-6591	150	43018BG01	41	4WZ30-D/Z	14
024T81-33131-A1	35	05146555 5501110	150	103003275-6591	150	430243101	41	4W256-H24	14
004T01 00101 D1		05140500 5501	1	100000270 0001	150	43024BG01		4W256-H48	1/
024T81-33131-D1	35	05146560-5591	150	103004246-5591	100	43UZ4DGU1	41	4WZ30-П40	14
024T88-33131-A3	35	05146560-5591US	150	103004248-5591	150	43024BK01	41	5000600	116
004T00 00101 D0		05140500 005100	1	100001210 0001	150	43024FK01	// 1	50DLC-M01	61
024T88-33131-D3	35	05146561-559105	150	103004236-3301	100	43UZ4FNU1	41	JUDEG-INIUT	01
024TC8-14180-20	37	05146560-5591 05146560-5591US. 05146561-5591US. 05146566-5591 05146566-5591US.	150	103004257-5501	150	430303101	41	50DSC-M01	61
0266-004	121	OFTACECC FEOTILE	150	102004250 5501	150	43030BG01	// 1	50DST-M01	61
0200-004	131	03140300-339103	130	103004236-3301	130	430300001	41		
0268-004	131	05146567-5591US	150	103004259-5501	150	430363101	41	50SLC-M01	61
0270-004	120	05146629-5591	151	102004728 6501	151	43036BG01	// 1	50SSC-M01	61
		03140029-3391	131	103004256-5501 103004257-5501 103004258-5501 103004259-5501 103004728-6591	131	400400101	41	50000 NO1	01
0274-004	130	05146632-5591	151	103003093-0391	101	430483101	41	50SST-M01	1
0278-004		05146635-5591	151	1189A 010U1000	128	43048BG01	41	5101180	116
		1000000	131	110040 0771000	100	420002101	41		
0279-004		10032026		1189AP 8771000	1Z8	430603101	41	5101182	
0284-004	132	10032065	48	1212 0061000	45	43060BG01	41	5101183	116
0205 004	122			1212 006U1000	15			5101184	116
0285-004		10032072	4ŏ			430723101	41	J1U1104	īō
0287-004	138	10032079	48	1212 0091000	45	43072BG01	41	52-200-25	5/
0280 001	127	10032092	17	1212 009U1000	15	/308/3101	/11	52-200-28	57
0289-001	13/	10002034	4/	1010 0001000	4J	430843101 43084BG01	41	52-200-28 52-200-45 52-200-48 52-240-25	J1
0290-004	134	10032094	47	1213 0091000	45	43U84BGU1	41	o∠-∠∪U-45	5/
0292-004	13/	10032121	// 2	1213 009U1000	45	430963101	/11	52-200-48	57
0232-004	104	1002007	40	1010 00001000	TJ	4200CDC01	T1	52 240 2E	
0299-001	134	10032207	48	1213 D151000	45	43096BG01	41	JZ-Z4U-ZJ	5/
0299-031	13/	10032223	48	1213 D15H1000	45	431443101 43144BG01 44006BG01	41	52-240-45 52-241-28	57
0200 004	100	10002220	40	1/2E0/E 0	20	12111DC01	// 1	52 2/1 20	E7
0300-004	132	10032227 10032426	48	1430840-U	ZU	43144DUU1	41	JZ-Z41-Z0	
0301-004	132	10032426	48	144FC5-14101D53	38	44006BG01	41	52_2/11_//8	57
0202 004	120	10022424	//0	1//TC0 1/100 00	27	44006EC01	// 1	533945 0101000	120
0302-004	132	10032434	48	1435845-0144EC5-14101D53144TC8-14180-20	5/	44000FGUI	41	JJJJ4J U1U1UUU	140
0304-001	136	10032447	48	1499507-0	20	44006FG0144008BG01	41	5339B5 0101000	128
0206 001	120	10032452	17	1499507-0 1499647-2	20	//008FG01	/11	533945 0101000 5339B5 0101000 5339B5 010U1000	120
U3UD-UU1	120	10032432	4/	1433047-2	20	T-10001 UU1	41	0000D 0001000	140
0306-001 0307-001	134	10032455	47	1499649-2	20	44008FG01 44012BG01	41	5339Q5 0091000	128
0207 021	124	10032459	17	1700A 0061000	15	44012FG01	/11	533905 000111000	120
0307-031	134	10032439	4/	1700A 0001UUU	40	T-10121 UUI	41	JJJJQJ 00JU1000	140
0308-001	134	10032510	48	1700A 006U1000	45	440183101 44018BG01	41	5339Q5 0091000 5339Q5 009U1000 5339Q5 0101000 5339Q5 010U1000 54-246-2A	128
0308 031	12/	10032528	// 0	17004 0091000	15	44018BG01	/l Ī	533905 010111000	128
0308-031	134	10032528	40	1700A 0091000 1700A 009U1000	4J	440040101	41	EA 04C 04	170
0312-004	135	10032535	48	1/00A 009U1000	45	440243101 44024BG01	41	54-Z4b-ZA	5/
0314-004	125	10043494	10	1700R 0061000	15	44024RG01	Д1	54-246-2B 54-246-4A 54-246-4B	57
0010 004	100	10050500	+0	17000 000111000	+J	44004DV01	41	EA 240 AA	
0316-004	135	10053566	48	1700R 006U1000	45	44024FK01	41	J4-Z40-4A	
0318-004	136	10057903	<b>∆</b> 7	1700R 0091000	45	44024FK01	41	54-246-4R	57
0010-004	100	10001000	40	17000 00011000	TJ	440202101	/ 1	5.4 272 2A	
0320-001	133	10061862	48	1700R 009U1000	45	440303101	41	04-Z/Z-ZH	5/
0324-001	133	10063671	<b>∆</b> 7	1701A 0091000	45	44030BG01	<b>4</b> 1	54-272-2B	57
0005 001	100	10000071	+/	17014 00011000	+J	4402C2101	41	54-272-4A	
0325-001	134	10063671 10063672	4/	1/U1A UU9U1000	45	440363101	41	04-Z/Z-4A	5/
0325-041	13/	10063684	<b>∆</b> 2	1701A D151000	45	44036BG01	<b>4</b> 1	54-272-4R	57
				1701A 009U1000 1701A D151000 1701A D15U1000	FU	44036BG01440483101	//1	54-272-4B 543945 0101000	120
0326-001	134	10068822	48	1/U1A D15U1UUU	45	440483101	41	J45945 U1U1UUU	128





### $543945\ 010U1000 - 9740\ 060U1000$

543945 010U1000	128	66-240-2B		760102335	65	760140301		95-000-99	
551945 010U1000		66-240-4A	56		65	760147439		95-050-41	
5D460-03L		66-240-4B		/60102350	65	760147447	8	95-050-41-X	
5F-220-25		66-246-2A		760102368	65 65	760147454 760147496	8 0	95-050-51 95-050-51-X	۱۷۱۷ ۲۵
5F-220-28 5F-220-45		66-246-2B 66-246-4A		760102370	65	760147496	0 Q	95_050-31-7	72 72
5F-220-48	57 57	66-246-4B	56 56	760102364	65	760147512	8	95-050-99 95-050-99-X	72
5F100-12A	11	66-272-2A			65	760147777	8	95_200_//1	17
5F100-12P	11	66-272-2B		760102418	65	760147785 760147793	8	95-200-42 95-200-51	72
5F100-12Z		66-272-4A		760102434	65	760147793	8	95-200-51	72
5F100-16P	11	66-272-4B	56	760102442	65	760147801	8	95-200-52	72
5F100-1ST	11	6910G-D48	14	760102459	65	760147819	8	95-200-99	72
5F100-24A		6910G-U24			65	760147827	8	95-400-03-BP	/2
5F100-24P	11	6910G-U48	14	/601024/5	65	760147835	8	9501 0601000 9541 0601000	45
5F100-24Z	II	69270-D48		760102483	65 65	760147843		9703798/00	45 6.4
5F100-3AC 5F100-3BC	]] 11	69270-U24 69270-U48	14	760102491	65	760147850 760147868	0 Q	9703799/00	6/1
5F100-3ZC	II 11	69586-C48			65	760147876	8	9703800/00	64
5F100-6AC	11	69586-U12	13	760102517	65	760147884		9703801/00	64
5F100-6BC	11	69586-U24	13	760102541	65	760147892	8	9703802/00	64
5F100-6ZC	11	69586-U48	13	760102558	65	760147900	8	9703803/00	64
5F100-6ZT	11	69586-U96	13	760102566	65	760147918	8	9703804/00	64
5F100-8ST	11	69587-U48	14	760102574	65	760147926	8	9703805/00	64
5F100-8ZT	11	6A-272-2A	56	/60102582	65	760147934	8	9703806/00	64
5F100-BLK	Il	6A-272-2B	56	/60102590	65	760147942	 ه	9703807/00 9703809/00	
5F100-BPP	11	6A-272-4A	56	/bU1U2bU8	65 65	760147959 760147967	 ه	9703810/00	
5G110-24W	/b 7£	6A-272-4B 6A10G-RW6	5b	760102616	65 65	7813LC 0061000	0 ///	9703811/00	6/1
5G110-BW5 5G110-RW5	/0 76		13	760102024	65	7813LC 006U1000	44 AA	9703812/00	64
5G270-D48	 1 <u>/</u> J	6A586-U48	13	760102657	65	7813LC 0091000	44	9703813/00	64
5G270-U24	14	6A587-U24	14	760102665	65	7813LC 009U1000	44	9703814/00	64
5G270-U48	14	6A587-U48	14	760102673	65	787802GD120003F	25	9703815/00	64
5G596-C48		6AS10-03L	76	760102681	65	787802GD820003F	25	9703816/00	64
5G596-U12		6D460-03L		760102699	65	8000-1-D-M5	106	9703817/00	64
5G596-U24	13	6F-272-2A	55	760102707	65	8000-1-D-M6	106	9703818/00	
5G596-U48	13	6F-272-2B	55	/60102/15	65	8000-1-D-S9 8000-1-U-M5-4S	106	9703821/00	64
5G596-U96	13	6F-272-4A		/60102/23	65	8000-1-U-M5-4S	10b	9703822/00 9703823/00	b4
5G597-U48	14	6F-272-4B	55	760102731	65	8000-1-U-M6-3S 8000-1-U-S9-3L	10b 106	9703824/00	6/
5LDCL-M015LDLC-M01	bl	6H-272-2A 6H-272-2B		760102749	65 65	8000-2-D-M5	106	9703825/00	6/1
5LDSC-M01	01 61	6H-272-4A	55 55	760102704	65	8000-2-D-M6	106	9703826/00	64
5P130-00N	11	6H-272-4B	55 55	760102772	65	8000-2-D-S9	106	9703827/00	64
5R130-00N	11	6S10G-S6A	76	760102798	65	8000-2-H-M5-4S	106	9703828/00	64
5R1UA-A03	11	6S180-SH6	76	760102806	65	8000-2-U-M6-3S 8000-2-U-S9-3L	106	9703829/00	64
5R1UE-A03	11	6S460-03S	76	760102814	65	8000-2-U-S9-3L	106	9703830/00	64
5R1UH-S03	11	6T-272-2A	56	760102822	65	8000-4-D-M5 8000-4-D-M6	106	9703832/00	64
5R2UA-A06		6T-272-2B	56	760102830	65	8000-4-D-M6	106	9703833/00	64
5R2UH-S06		6T-272-4A		/60102848	65	8000-4-D-S9	106	9703834/00	
5R3UA-A12	11	6T-272-4B	56	/60102855	65	8000-4-U-M5-4S 8000-4-U-M6-3S	10b	9703835/00 9703836/00	
5R430-00N 5R440-00N	II	6W587-U48	14	/6010289/	65 65	8000-4-U-S9-3L	10b 106	9703837/00	04
5R440-00N		760038513760038521	18	760102303	65	82269 8771000	128	9703838/00	6/1
5R4UH-S12	11	760038539	10	760102313	65	82723 8771000	45	9703839/00	64
5R730-00N		760038547	18	760102321	65	82740 8771000	45	9703840/00	64
5R740-00N		760057190	65	760102947	65	82760 877U1000	45	9703841/00	
5R760-00N		760057208		760102954	65	82761 8771000	45	9703844/00	64
5R930-00N	11	760057216	65		65		45	9703845/00	64
5R940-00N	11	760057224			65	8443 0601000		9703846/00	
5R960-00N	11	760066183		/60102988	65	8444 0601000	45	9703847/00	
5S180-SH5	/6		18	/60103143		8461 0601000	45 11	9703848/00 9703849/00	
5S460-03S	/b 1/I	760077032760081364	/5	760104984 760104002	18	8471 0601000 8719 0601000	45 15		64
5W597-U486110G-RW6	14 76	760081372	49 10	760104332 760105007	10 12	8723 0601000 8723 0601000	45 15	9703851/00	6/1
61110-24W	70 76	760081380	49	760105007	18 18	8723 0601000 8760 0601000	45	9703852/00	64
61110-24W	76	760081398	49	760105148	18	8761 0601000	45	9703852/00 9703853/00	64
61110-RW6	76	760081406	49	760105163	18	8762 0601000	45	9/03855/00	64
62DCL-M01	61	760083402	18	760105171		8770 0601000	45	9703856/00	64
62DCT-M01	61	760083410	18	760105353	17	8771 060U1000	45	9703857/00	64
62DLC-M01	61	/60090068	18	760107771	18	8772 060500	45	9703858/00	64
62DSC-M01	61	760090621	65	/6010//89	18	8777 0601000	45	9703859/00	64
62DST-M01	bl	760090639	65	/bUIIII8/	18	88760 002U1000 88761 0021000	45 45	9703860/00 9703861/00	b4
62SCL-M01	bI 61	760090647760090654	b5	760111195 760111203	18 18	89463 0061000	40 170	9703862/00	04 6/1
62SCT-M0162SLC-M01	uı 61	760090654 760090662		760111203 760111211	18	9116 010U1000	128	9703863/00	6/I
62SSC-M01	01 61	760090670	65 65	760111211	18	9269 0101000	128	9703864/00	64
62SST-M01		760093344	18	760116665	18 18	9418 0601000	45	9705900/00	
	128	760093351	18	760117424	18	9451 010U1000 9463 J221000	45	9706790/00	64
633938 877U1000	128	760093369	18	760117432	18 18	9463 J221000	128	9706791/00 9706792/00	64
633948 8771000	128	760093377760093385	18	760117440	18	95-000-04	72	9706792/00	64
6339Q8 8771000		760093385	18	760122630	49	95-000-40	<u>72</u>	9706793/00	64
	128	760093393 760095562	18	/60122648	49 49	95-000-41	12	9706794/00	
643948 877U1000	178	760095562 760102327	1/	/ 00122055 7601/10202	49 73	95-000-50 95-000-51	/ Z 70	9729 0601000 9740 060U1000	45
66-240-2A	00	/0010232/		/ 00140233	13	30-000-31	1 L	37 TO 00001000	4J







#### A041 — L40123401

A041 L4012540	*		72			
4041 114 11	F AV1020FF	10 P00040	20 CLEANED DODT LC	24	HCS010	1/12
A041114—11	L5 AX103255	12 B9C042			HCS020	143
A045114-11	L5 AX103256	12 B9C044	30 CMDABLLCZIW		HDWR-LOCK-KIT	143
A072114–11		12 B9C045	30 CP16BLY	15	HDWK-LUCK-NII	9-10
ACE48	92 AX103260		30 CP24BLY	15	ICP002EB3010/25ICP002XB3010/X5	23
ADP-DLCO-CCARC-CLS	72 AX103261	12 B9C602	30 CP48BLY	15	ICP002XB3010/X5	23
ADP-DLCO-CCBRC-CLS	72 AX103264	12 B9C606	30 CP72BLY	15	ICP004EB3010/25	23
ADP-DLCO-CCGRC-CLS7	72 AX103267	21 B9C609	30 CPA24BLY	15	ICP004XB3010/X5	23
ADP-DLCO-CCKRC-CLS7			30 CPA48BLY	15	J/VD-RX-01	128
ADP-DLCO-CCNRC-CLS7	72 AX103622	21 B9C616			J/VD-RX-01(SC)	
ADP-DLCO-CMARC-CLS	72 AX103623	21 B9C619			J/VD-RX-01(SM)	128
	Z AX1030Z3				J/VD-TX-01	
ADP-DLCO-CMBRC-CLS7	72 AX103641				J/ VD-1A-U1	120
ADP-DLC0-CMKRC-CLS7	72 AX103642	21 B9C810	30 DOWNLOAD 1	18	J/VD-TX-01(SC)	120
ADP-DLC0-CMNRC-CLS	72 AX103657	21 B9C811	30 DP0E24U1XG	16	J/VD-TX-01(SM)	128
ADP-DSC0-CCAFL-CLS7	72 AX103676			16	JP1FSIW-A	
ADP-DSC0-CCBFL-CLS7	<sup>7</sup> 2 AX103677	21 B9C814	30 DP0E8S2XG	16	K408110000	152
ADP-DSC0-CCGFL-CLS7	72 AX103683	21 B9C817		16	K408120000	
ADP-DSCO-CCKFL-CLS7	72 AX103684	21 BLTP12E77SSP050	23 DP0EPWRB120Y	16	K408130000	152
ADP-DSC0-CCNFL-CLS7	72 AX103687	21 BLTP12X77SSP050	23 DP0EPWRCU	16	K410110000	152
ADP-DSCO-CMAFL-CLS7			23 DP0EPWRR1250	16	K410120000	152
ADP-DSC0-CMBFL-CLS7	72 AX103695		23 DPOESHELF	16	K410130000	152
ADP-DSCO-CMKFL-CLS	72 AX103033	21 BLTP72X74SFP150			K412110000	
			23 DI OLYMNOD	1/2	K412120000	152
ADP-DSCO-CMNFL-CLS7	72 AX103714		23 DOVO-HUD		K412130000	152
ADP-ST00-MCATH-NLS7			22 DSV3-MAX	142	N41Z13UUUU	102
ADP-ST00-MCBTH-NLS7	<sup>7</sup> 2 AX103802	21 BMDP72E77SSP150.		142	K415110000	
ADP-ST00-MCKTH-NLS7	72 AX103803		22 DSV3-PREM	142	K415120000	152
ADP-ST00-MCNTH-NLS	72 AX103821	21 BMDP72XLLSSP150	22 DSV3-STND	142	K415130000	152
ADP-ST00-MCXTH-NLS7	72 AX103822	21 BRP-19-1-75	9 DUSTK-CAP	67	KA1011100000010	152
ADP-ST00-MMATH-NLS7	72 AX103837	21 BRP-19-2-75	9 E797902QD120003F	25	KA1012100000010	152
ADP-ST00-MMBTH-NLS7	2 AX103910	21 BRP-19-3-75	9 E797902TD120003F	25	KA1511100000010	152
ADP-ST00-MMKTH-NLS	<sup>7</sup> 2 AX103922		9 E797902TD820003F	25	KA1512100000010	152
ADP-ST00-MMNTH-NLS7	72 AX103923	97 BRP-19-5-75		24	L30023W01	13
ADP-STOO-ININITH-INLS7	72 MATOSIZS	21 C1253-2CM	14 ECM-UM12-05-93Q	24	L3002BW01	
			14 ECM-UM12-05-93Q 14 ECM-UM12-05-93T	4	L30043301	43 10
APSSC-S016	61 AX103932	21 C1255-H48	14 EUN-UNIZ-UD-931		L30043301	43
AX101318		97 C1586-U48	14 EDGE-01U		L30043W01	43
AX101319	74 AX104130	97 C1686-U48	14 EDGE-04U		L3004B301	43
AX1013207	74 AX104131	97 CCH-01U	9 EDGE-CP24-90	24	L3004BW01	43
AX101321	74 AX104152	74 CCH-02U	9 EDGE-CP24-E3	24	L30063401	43
AX1013227	74	74 CCH-03U	9 EDGE-DBLSTRN1-10	24	L30063W01	43
AX1013237	74 AX104154	74 CCH-04U	9 EDGE-STRN1-10	24	L3006B401	43
AX101324		74 CCH-CP06-15T	10 EDGE-STRN2-10	24	L3006BW01	43
AX101325			10 EFLX1500R-PDU1U	145	L30083401	43
AX1013267			10 EFLX2000R-PDU1U	145	L3008B401	43
AX101327			10 EFLX2000R-PDU1UL	145	L30123401	43
AX101874			10 EFLXI3000R-PDU1UIEC.	145	L30123W01	43
AX101875		74 CCH-CP06-91	10 EHBPL1500R-PDU1U	145	L3012B401	43
AX102248	97 AX104192	74 CCH-CP06-97	10 EHBPL2000R-PDU1U		L3012BW01	43
AX102249		74 CCH-CP06-98	10 EHBPL3000R-PDU1U	1/15	L30183401	43
AX102250	97 AX104193	74 CCH-CP06-G1			L30183K1Q	/13
	97 AX104194	74 CCH-CP06-G571			L30183W01	/13
AX102251	7/ ANIU424U-DZJ		10 ePBZ89		L3018B401	43
AX102256		71 CCH-CF00-G771 CCH-CP08-97	10 er BZ69	145	L3018BK1Q	43
AX102257	7/ AX1U4Z41-DZ3	/I UUT-UFUO-3/	10 ELDZJU	145	L3018BW01	43
AX102280	74 AX104241-S1	71 CCH-CP12-15T	10 ePBZ91 10 ePBZ92	140	L30243401	43
AX102281	74 AX104242-B25	71 CCH-CP12-19T 71 CCH-CP12-25T	IU	143	L30243401	43
AX102282	74 AX104242-S1	/I UUH-UPIZ-251	10 ePBZ93	145	L30243K1Q	43
AX1022837	74 AX104243-B25	71 CCH-CP12-91	10 ePBZ94	145	L30243W01	43
AX1022847	74 AX104243-S1	71 CCH-CP12-97	10 ePBZ95		L3024B401	
AX1022857	74 AX104268	71 CCH-CP12-98	10 ePBZ96	145	L3024BK1Q	
AX102286	74 AX104270	71 CCH-CP12-A/	10 ePBZ9/	145	L3024BW01	43
AX1022877	74 AX104271	71 CCH_CP12_A8	10 △PR798	145	L30363401	43
AX1022887	74 B9A002	30 CCH-CP12-A9	10 ePBZ99	145	L30363W01	43
AX1022897	74 B9A004	30 CCH-CP12-D3	10 ETRTN-WTL	67	L3036B401	43
AX102428		30 CCH-CP12-A9 30 CCH-CP12-D3 30 CCH-CP24-97 30 CCH-CP24-A7	10 ETRTN-WTL 10 FAP6WABLDLCZ	69	L3036RW01	43
AX102429	7 B9A039	30 CCH-CP24-A7	10 FCX012-10ABI	69	L30483W01	43
AX102430		30 CCH-CP24-A8	10 FLCCLIW-X	100	L30483W01	43
		30 CCH-CP24-A9	10 FLOODIN A	68	L3048B401	//3
AX102431	97 B9A045	30 CCH-CP24-D3	10 FXB10A-NM1		L3048BW01	/13
		30 CCS-01U	9 FXE10A-10AM1		120722401	43
AX102482	7/ D3AU46		9 FACTUA-TUANIT	00	L30723401 L30723W01	43
AX102655	97 B9A602	30 CCS-03U	9 FXE10A-10M1	68	120720401	43
AX102657	97 B9A606	30 CDF-ER-7A-19	9 FXE3-10AM1 9 FZB-12P-85-S		L3072B401	43
AX102660	97 B9A609	30 CDF-IBU-7-6	9 FZB-12P-85-5	91	L3072BW01	43
AX102670	97 B9A612	30 CDF-IBU-CVR-6	9 HCAD01	143	L30963W01	43
AX102671	97 B9A616	30 CFPTR2IW	99 HCAD02	143	L30963WU1	43
AX103073	74 B9A619	30 CFPTR4IW	99 HCAD03	143	L3096B401	43
AX1030767	74 B9A620	30 CIK5F88TGBI	78 HCC001	143	L3096BW01	43
AX1031141	l2 B9A810	30 CJK688TGBL	78 HCD052	143	L31443401	43
AX103115	2 B9A811	30 CJK6X88TGBL	78 HCDS12	143	L31443W01	43
AX1031161	l2 B9A812	30 CJP-01U	9 HCDS24	143	L3144B401	43
AX1031211	l2 B9A814	30 CJP-02U	9 HCFD10	143	131//RW01	//3
AX1031432	P1 B9A817	30 CJP-03U	9 HCFD20	143	L40043301	43
AX1032481	2 B9C002	30 CJS6X88TGY	/8 HCH001	143	L4004B301	43
AX1032491	2 B9C004	30 CJSK5E88TGBL	78 HCHC01	143	L40063401	43
AX1032531		30 CJSK688TGBL	78 HCP001	143	L4006B401	43
AX1032541				143	L40123401	43
AV102724	Z DJ600J					





### L4012B401 — PVUTPSPC1MBBUY

140100401	40	ME7200	1	ME0202 E2	٥	D 30E00043	22	PDR0012XB3010/X5	22
L4012B401		M572095 M572105	1	M5828352 M5828552		R-20500043 R-205KAN9FA-MM	22	PDR006AB0707	
L40183401		M5/2105 M573225	3	M5828652		R-205KAN9GA-MM		PDR006CB3510/25	
L4018B401	43 43	M573605		M5828752	0	R-205KAS9FA-50T	22	PDR006EB3010/25	23. 31
L4018BK1Q	43	M573615	3	M5828852	Ŏ	R-205KAS9GA-50T	22	PDR006LB3010/75	31
L40243401	43	M573625	3	M5828952	0	R-85400010	22	PDR006XB3010/X5	23
L40243K1Q	43	M573635	3	M58290 52	0	R-854B00000-1	22	PDR012AB0707	31
L4024B401	43	M573645	3	M5829152 M5829252	0	R-FC01U-P R-FC02U-P	22	PDR012CB3510/25	31
L4024BK1Q	43	M573655	3	M5829252	0	R-FC02U-P	22	PDR012EB3010/25	31
L40363401	43	M573665		M5829352	0	R-FC03U-P R-FC04U-P	22	PDR012LB3010/75	
L4036B401	43	M573675	3	M5829452 M5829552	0	R-FST2-F012	∠∠	PDR024AB0707 PDR024CB3510/25	31
L40483401	43 42	M573705 M573715		M5829652	n	R-M2LCQ24-50E	22	PDR024EB3010/25	31
L40723401		M573725	3	M5829752	0	R-M2SCD12-50E	22	PDR024LB3010/75	31
L4072B401		M57373	3	M5829852	0	R-MCS6015-08	75	PPRTN-WLG	67
LLBQ-ABDEFGHJ		M573745	3	M5829952	0	R-MCS603-08	75	PSL-DCJB	100
LTP006AB0403	34	M573755	3	M5830052	0	R-MCS605-08	75	PSL-DCPLX	100
LTP006CB3510/25	34	M573765		M5864650		R-MCS607-08		PSL-DCPRLX	100
LTP006EB3010/25	34	M573775		M5864750	0	R-MCS609-08	75	PSL-LCAB	
LTP006LB3010/75	34	M573785	3	M5864850		R-OFP-LCD12LC		PSL-SCBD	
LTP012AB0403	34	M574135	0	M5864950	0	R-OFP-LCQ24LC		PSP6004BU-UGY	55
LTP012CB3510/25	34	M574145	0	M5865050 M5865150		R-OFP-SCD12LCR-P1DF2LRFZFZ001M		PSR6004BU-UGY PULSTS1400R-1U	55
LTP012EB3010/25	34 24	M574155 M574165		M5865250		R-P1DF2LRFZFZ002MR-P1DF2LRFZFZ002M		PULSTS16AMPR-1U	1/17
LTP012LB3010/75 LTP0X024AB0403	54 21	M574175	.n	M5865350		R-P1DF2LRFZFZ003M		PVF9L10-10M0.5Y	73
LTP0X024CB3510/25	34 3 <i>1</i> 1	M574185		M5868250		R-P1DF2LRGZGZ001M		PVFXL10-10M0.5Y	73
LTP0X024LB3010/75	3 <u>4</u> 3 <u>1</u>	M574195		M5868350	0	R-P1DF2LRGZGZ002M	22	PVQ-BIU6C10BU	77
LTP12B024EB3010/25	34	M574205	0	M5868450	0	R-P1DF2LRGZGZ003M	22	PVQ-BIU6C10MBU	
LTR006AB0403	34	M574215	0	M5868550	0	R-P3DF2LRGZGZ001M	22	PVQ-BIU6C14BU	77
LTR006CB3510/25	34	M574225	0	M5868650	0	R-P3DF2LRGZGZ002M		PVQ-BIU6C1MBU	77
LTR006EB3010/25	34	M575455	4	M5868750	0	R-P3DF2LRGZGZ003M	22	PVQ-BIU6C20BU	77
LTR006LB3010/75	34	M575465		M5868850	0	R-PHDPJS5E24 R-PHDPJS6A24	13	PVQ-BIU6C2MBU	77
LTR012AB0403	34	M575475		M5868950	0	R-PHDPJS6A24	13	PVQ-BIU6C3BU	//
LTR012CB3510/25		M575485		M5869050		R-TJS600		PVQ-BIU6C3MBU	//
LTR012EB3010/25		M575505		M5869150		120		PVQ-BIU6C5BU PVQ-BIU6C5MBU	//
LTR012LB3010/75		M575515 M575525	4	M5869250 M5869350	P/	226 301	115	PVQ-BIU6C7BU	//
LTR0X024AB0403 LTR0X024CB3510/25		M575535		M5869350 M5876252		3012BG01		PVQ-BIU6L10MBU	77
LTR0X024GB3310/2523, 3	34 3 <i>1</i> 1	M575545	1	M5877252	P	3012FG01	42	PVQ-BIU6I 1MBU	77
LTR0X024LB3010/75	3 <u>4</u> 3 <u>1</u>	M575555	4	M5877549	P	4012BG01	42	PVQ-BIU6L2MBU	77
LTR0X024XB3010/X5	23	M575565		M5877649		4012FG01		PVQ-BIU6L2MBU PVQ-BIU6L3MBU	77
LTR0X048EB3010/25	23	M575575		M5878449		4072BG01		PVQ-BIU6L5MBU	77
LTR12B048XB3010/X5	23	M576205	0	M5892653		4072FG01		PVQ-EM	19
M55986	53	M576215	0	M5893253	P	CH-01U	9	PVQ-ES6X10BU	77
M55987		M577505	0	M9655140	P	CH-02U		PVQ-ES6X10MBU	77
M55988		M577615		M9656640		CH-04U	9	PVQ-ES6X1BU	//
M55989	54	M578605		M9656740	PI	DP006AB0707	31	PVQ-ES6X1MBU	//
M56072	54	M578615		M9656840		DP006CB3510/25		PVQ-ES6X2BU PVQ-ES6X2MBU	//
M56092	54	M578665		M9656940		DP006EB3010/25 DP006LB3010/75		PVQ-ES6X3BU	//
M56093	54 E 1	M578675	0	M9657040 M9657140	PI DI	DP012AB0707	31 31	PVQ-ES6X3MBU	77
M56094	04 5 <i>1</i> 1	M578685 M578695	.n	M9657240	PI	DP012CB3510/25	31	PVQ-ES6X5BU	77
M56165		M578705	.0	M9657340	Pi	DP012EB3010/25	31	PVQ-FS6X5MBU	77
M56166	54	M578875	4	M9657440	PI	DP012LB3010/75	31	PVQ-EU6AC10BU	77
M56167	54	M579245	4	M9657540	PI	DP024AB0707	31	PVQ-EU6AC1BU	77
M56168	54	M579365		M9663940	Pl	DP024CB3510/25	31	PVQ-EU6AC2BU	77
M56670	54	M580075	4	M9A23139	Pl	DP024EB3010/25	31	PVQ-EU6AC3BU	
M56746	54	M580085	4	M9A604T40	PI	DP024LB3010/75	31	PVQ-EU6AC5BU	77
M56876	54	M580095		M9A614T40	Pl	DPK006AB0707 DPK006CB3510/25	32	PYQ-FMT PYQ-FMTMTP-9 PYQ-FMTMTP-ZX PYQ-MIQAPS24 PYQ-MIQAPU24 PYQ-MIQPS24 PYQ-MIQPS96A PYQ-MIQPS96F PYQ-MIQPS96F PYQ-MIQPU24 PYQ-MIQPU24 PYQ-MIQPU24 PYQ-MIQPU24	19
M56877		M580105	4	M9B039T40 M9B042T40	۲l	NLV006ED3010/3E	3Z	T V Q-TIVITIVITY-9	19
M56878	54 5.4	M581555 M581565	1	M9B045T40	ri Di	DPK000CBS3010/25 DPK006EB3010/75 DPK012AB0707 DPK012CB3510/25 DPK012EB3010/25	ა∠ 32	υνα-πινιπίπε-ζη PVO-ΜΙΟΔΡΟ24	19
M56882	54 51	M581575	1	M9B048T40	L)	DI NOUGLESULUI / S NPKN12ARN7N7	32	PVO-MIOAPI124	19
M56905	51 51	M581585	1	M9B23039	PI	DPK012CB3510/25	32	PVO-MIOPS24	19
M56954	51 54	M581595	1	M9B24039	PI	DPK012FB3010/25	32	PVQ-MIQPS96A	19
M57048	54	M581605	1	M9B24139	PI	DPNU1/103U1U//3	32	PVQ-MIQPS96F	19
M57129	54	M581615	1	M9R2/12 39	PI	DPK024AB0707	32	PVQ-MIQPU24	19
M57193	51	M581625	1	M9B24539	Pl	DPK024AB0707 DPK024CB3510/25	32	PVQ-PM	19
M57194	51	M581635	1	M9B245	PI	DPK024LB3010/75	32	PVQ-MIQPU24 PVQ-PM PVQ-PS12VDC-S PVSTP6X10MBBU PVSTP6X1MBBU PVSTP6XSMBBU PVSTP6XSMBBU PVSTP6X5MBBU PVUTP6X5MBBU PVUTP6X1MBBU PVUTP6X1MBBU PVUTP6X2MBBU PVUTP6X2MBBU	19
M57195	51	M581645	1	M9C23339	Pl	DPK12B024EB3010/25	32	PVSTP6X10MBBU	//
M57196	bl	M581755	1	M9C601T40	۲l	DPK12B048AB0707	32	LA91L0YTMRRA	//
M57197	bl E1	M581765	1	M9C611T40	rl Di	DPK12B048CB3510/25	3Z	L AS I LOYS INDRO I	/ / 77
M57198 M57199	DI E1	M581775 M581785	1	M9D23539 M9W616T40	ri Di	DPK12B048EB3010/25 DPK12B048LB3010/75	3Z 32	PVSTP6X5MRRII	11 77
M57200	51 51	M581785 M581795	1	MDP12X77SSP05022	l I	DI N12D040LD3010/73 NPK12R072AR0707	32	PVIITP6X10MRRII	77
M57201	51 51	M581805	1	MII -SM2401MAF 17	PI	DPK12B072AB0707 DPK12B072CB3510/25	32	PVIJTP6X1MBRII	77
M57202	51	M581815	1	MII -SM8TAF1GPB 17	PI	DPK12B072EB3010/25	32	PVUTP6X2MBBU	77
M57203	51	M581825	î	MIL-SM8TXAF2GPA17	PI	DPK12B072EB3010/25 DPK12B072LB3010/75	32	PVUTP6X3MBBU	77
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TFHD012EB3010/25     33       TFHD012LB3010/75     33       TKT-UNICAM-CTS-SF     72       TKT-UNICAM-PFC     72       TN-GLC-LH-SM     101       TN-GLC-SX-MM     101       TN-GLC-T     101       TN-GLC-T     101
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#### WESCO Distribution. Inc. Terms and Conditions of Sale - 011107

#### 1. WESCO'S Terms and Conditions Control the Agreement.

- A. These terms and conditions are incorporated into and made a part of the agreement or proposal ("Agreement") by WESCO Distribution, Inc. and any of its domestic subsidiaries, unincorporated divisions or affiliates ("WESCO") to sell to the named those the goods before a little of the conditions of ("WESCO") to sell to the named Buyer the goods referenced on the face wesco / to sein to the flamed blyer the goods referenced in the ago of this document ("Goods") and services (including, without limitation, any material management, assembly and kitting services, and engineering and design services (whether performed by WESCO or a subcontractor)) referenced on the face of this document ("Services"). The Agreement expressly limits Buyer's acceptance to these terms and conditions. Buyer may reject the Agreement by not ordering or receiving any Goods or Services. The Agreement does not constitute an acceptance by WESCO of any offer or counteroffer of Buyer, and WESCO hereby rejects any additional, different, or inconsistent terms, conditions or limitations contained in or incorporated by reference in any forms, purchase orders or other documents of Buyer that already have been or hereafter may be presented to WESCO with respect to the Agreement.
- nereatter may be presented to WESCO with respect to the agreement.

  B. If Buyer has submitted or will submit additional and/or different terms and conditions to WESCO, or submit a counteroffer to WESCO, WESCO's subsequent performance will not be construed as either acceptance of Buyer's additional and/or different terms and conditions or Buyer's counteroffer, nor will WESCO's subsequent performance be simply to the substance of the Uniform terms and conditions. viewed as a willingness to accept any provision of the Uniform Commercial Code, as adopted by any State or Commonwealth, that is contrary or in addition to any of the terms and conditions hereof.

- contrary or in addition to any of the terms and communisments.

  2. Prices.

  A. Unless otherwise agreed to by WESCO in writing, WESCO's prices for the Goods and Services will be the prices stated on the face of this document or WESCO's standard prices for such Goods and Services as of the date hereof, provided that, where standard prices for Goods in the quantities ordered as calculated by WESCO extend beyond two decimal places, WESCO shall round such prices for Goods to the nearest two decimal places, WESCO shall round such prices for Goods to the nearest two decimal places for purposes of determining Buyer's payment obligation with respect to such Goods; provided, however, that WESCO may change the price for the Goods and Services in accordance with any change to its standard pricing for such Goods and Services prior to the date of shipment of Goods or performance of Services, as the case may be.
  - be.

    B. The prices of any and all Goods and Services shall be confidential, and Buyer shall not disclose such prices to any unrelated third party. WESCO and Buyer acknowledge and agree that money damages for any Goods or Services is both incalculable and insufficient and that any such breach would irreparably harm WESCO. Therefore, in the event of an actual or prospective breach of the obligation of Buyer not to disclose the prices of any Goods and Services, WESCO shall be entitled to a permanent and/or a preliminary injunction to prevent or remedy such breach and shall have the right to specific enforcement of this Agreement against Buyer in addition to any other remedies to which WESCO may be entitled at law or in equity.

    Specifications.

winch wescol may be entitled at leave of in equity.

Specifications.

Unless WESCO has expressly agreed otherwise in writing, it is Buyer's responsibility to ensure that the Goods and Services are the ones that it has requested and that all specifications and quantities are correct. WESCO HERREBY EXPRESSIX DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES THAT GOODS AND SERVICES CONFORM TO ANY

AND WARRANTHES HAIL GOODS AND SERVICES CONFORM TO ANY SPECIFICATIONS, DRAWNOS, DESIGNS, OR SAMPLES.

Shipment of Goods: Performance of Services.

A. Shipment of all Goods shall be made E.O.B. point of shipment (Ex. Works WESCO'S facility per INCOTERMS 2000 for international shipments). Buyer shall bear the risk of loss and damage to Goods after

- delivery to the point of shipment.

  B. Any shipping dates for Goods or performance dates for Services given in advance of actual shipment of Goods or performance of Services are awater of adular simplified of volves of periodizate of services with WESCO's best estimates for informational purposes only, and deliveries of Goods and performance of Services will be made subject to prior orders on file with WESCO. Unless otherwise agreed to by WESCO in writing, WESCO may, in its sole discretion, use any commercial carriers for shipment of the Goods WESCO will use its reasonable efforts to comply with Buyer's requests as to method and route of transportation, but WESCO were supported to the control of the
- wait buyer's registes as of memory and route of transportation, but WESCO reserves the right to use an alternate method or route of transportation, whether or not at a higher rate.

  C. Unless otherwise agreed to by WESCO in writing, Buyer will pay all insurance costs in connection with delivery of the Goods, if any, and be responsible for filing and pursuing claims with carriers for loss of, or detection of Coods is transported. damage to, Goods in transit.
- D. Buyer is responsible for obtaining at its sole cost and expense any and all necessary licenses and permits for the Goods and Services, including, without limitation, any licenses and permits for
- transportation.

  E. If Buyer is unable to receive the Goods when they are tendered, Buyer will be liable to WESCO for any losses, damages, or additional expenses incurred or suffered by WESCO as a result of Buyer's inability to receive
- F. Buyer immediately will inspect all Goods upon its receipt of them and will be deemed to accept the Goods upon receipt. Any claims for shortages or discrepancies will be waived by Buyer unless made in writing to WESCO within five days of receipt of the Goods.
- G. For wire and cable, delivery length tolerance is ± 10%. Cutting and Reel charges will apply when other than standard manufacturer lengths are requested and delivery lead-times may be adjusted.
- H. WESCO may cancel in whole or in part any order for Goods or Services under the Agreement at any time.

  I. Until Buyer has fully and finally paid all amounts owed to WESCO for
- any Goods, Buyer shall hold such Goods in trust for WESCO, and WESCO may repossess them if Buyer fails to pay for them in a timely

- Payment.
   A. All payments for Goods and Services must be made in United States currency unless specified in writing by WESCO. Payments for Goods and Services will be made by such means as WESCO may specify, such as by check or wire transfer, provided that WESCO may refuse, in its sole discretion, payment by any means, including, without limitation, credit cards.
  - credit cards.

    B. Payment for Goods and Services is due within 30 days from the date of WESCO's invoice; provided, however, that WESCO reserves the right, in its sole discretion, to require full payment in cash before order entry, shipment, or delivery.

    C. WESCO shall have the right to offset any and all amounts due and
  - wing from WESCO to Buyer under this Agreement, including, without limitation, any chargebacks or rebates, against any amounts due and owing from Buyer to WESCO under this Agreement.
  - D. If Buyer defaults in payment, Buyer will be liable for all collection costs

- incurred by WESCO including, but not limited to, attorneys' and collection agency fees, and all related disbursements.
- E. If Buyer does not pay when payment is due, past due amounts are subject to service charges of one and a half percent (11/2%) per month or the maximum percentage rate permitted by law, whichever is less.

Taxes.
The purchase price of the Goods and Services does not include transportation taxes and sales, use, excise, import or any similar tax or other governmental charge arising pursuant to or in connection with the sale, purchase, processing, delivery, storage, use, consumption, performance or transportation of the Goods and Services. Buyer is responsible for payment of any transportation taxes, and any present or future sales, use, excise, import or any similar tax or other governmental charge applicable to the Agreement and to the sale and/or furnishing of the Goods and Services.

Goods and service.

Cancellation.

Buyer may cancel its order for Goods and/or Services, but only if WESCO agrees to such cancellation in writing and only after Buyer pays reasonable charges for expenses already incurred and commitments made by WESCO in connection with the placement of such order(s).

made by WESCO in connection with the placement of such order(s).

Disclaimer of Warranties.

WESCO HEREBY EXPRESSIY DISCLAIMS AND EXCLUDES ANY AND ALL REPRESENTATIONS AND WARRANTIES, WHETHER WRITTEN OR ORAL, WHETHER EXPRESS OR IMPLIED, WHETHER RISING BY CONTRACT, AT LAW, IN EQUITY, BY STRICT LIABILITY OR OTHERWISE, WITH RESPECT TO THE GOODS AND SERVICES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, ANY WARRANY AGAINST DEFECTS IN DESIGN, MATERIALS AND WORKMANSHIP, ANY WARRANTY OF FITNESS FOR A PARTICITAR PLIEPOSE ANY WARRANTY AGAINST REPHIRITIORY. MATERIAIS AND WORMANSHIP, ANY WARRANTY OF FITNESS FOR A PARTICLIAR PURPOSE, ANY WARRANTY AGAINST REPHIBITORY DEFECTS, ANY WARRANTY OF GOOD TITLE, AND ANY WARRANTY AGAINST INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY, INCLIDING, WITHOUT LIMITATION, ANY PATENTS, TRADEMARKS, OR COPYRIGHTS. WESCO shall, however, if given prompt written notice by Buyer of any claim of alleged patent, trademark or copyright infingement with respect to any Goods use its reasonable efforts to secure for Buyer such indemnity rights as the manufacturer may offer with present to such Goods. with respect to such Goods.

with respect to such Goods.

Exclusive Remedy.

Buyer's EXCLUSIVE remedy against WESCO for any claim for, or arising out of any in a Good tendered to Buyer is the repair or replacement of the Good, or alternatively, at WESCO's sole election, a refund of the purchase price of the Good. Buyer's EXCLUSIVE remedy against WESCO arising out of any defect in, or in connection with, any Service provided hereunder is the re-performance of that Service or, at WESCO's sole election, a refund of the purchase price of the Service. These remedies only will only be exalable to Buser for one sure rafter the Good is tendered or Service. available to Buyer for one year after the Good is tendered or Service is provided to Buyer, and WESCO's obligations under this Section 9 will be void unless Buyer provides WESCO with notice of the defect in the Good or Service within 30 days of discovery of the defect. Any Good returned to WESCO for repair, replacement or refund under this Section 9 will be returned by Buyer in accordance with WESCO's return material authorization procedures then in effect, Returns for a refund may be subject to restocking fees.

Limitation of Liability.

NOTWITHSTANDING ANYTHING ELSE CONTAINED HEREIN TO THE

NOTWITISTANDIAY ANTTHING EISE CONTRAIRY, IN NO EVENT WILL: (A) WESCO BE LIABLE TO BUYER FOR ANY CIRCUMSTANTIAL, CONSEQUENTIAL, CONTINGENT, EXEMPLARY, INCIDENTAL, INDIRECT, LIQUIDATED, MATERIAL, PUNITIVE, SPECIAL, SPECULATIVE OR OTHER DAMAGES, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOST PROFITS, SALES OR REVEAUES, COST OF REPLACEMENT GOODS, LOST BUSINESS OR REVIEWLES, U.OSI OF REPLACEMENT GOODS, LOST BUSINESS ON BUSINESS INTERRUPTIONS, OR ATTORNEYS FEES OR COURT COSTS ARISING IN ANY MANNER PURSUANT TO OR IN CONNECTION WITH THE AGREEMENT, THE GOODS OR THE SERVICES (EVEN IF WESCO IS MADE AWARE OF THE POTENTIAL FOR SUCH DAMAGES), AND (B) WESCOS TOTAL LLABILITY RELATED TO ANY GOOD OR SERVICE EXCEED THE PURCHASE PRICE OF SUCH GOOD OR SERVICE.

- Indemnification.

  A. Upon prompt notice by Buyer of any claim of U.S. patent, copyright, or trademark infringement with respect to any Goods or Services, WESCO will use its reasonable efforts to secure for Buyer such indemnity rights as the manufacturer may customarily give with respect to such Goods. This Section 10 sets forth Buyer's sole and exclusive remedy against WESCO regarding the infringement by any Goods or Services of any third party intellectual property rights, including, without limitation, any neutron to trademarks.
- any patents or trademarks.

  B. Buyer will indemnify, defend and hold harmless WESCO, its shareholders, officers, directors, employees, agents and representatives from and against all losses, damages, liabilities, costs, and expenses including, but not limited to, property damage, loss of profits or revenue, loss of use of any property, cost of capital, cost of purchased or revenue, tost of use of any property, cost of capital, cost of purchased or replacement power or temporary equipment, personal or boddly injury, or death ("Losses"), that may arise pursuant to or in connection with the Agreement, the Goods, or the Services (including, without limitation, Losses arising in connection with the performance of Services on Buyer's premises by WESCO's employees, representatives, agents, or subcontractors), regardless of whether such Losses are suffered directly by Buyer or arise pursuant to or in connection with a third-party suit, claim, counterclaim, demand, judgment or other action (each a "Claim") and regardless of whether or not WESCO or action (each a 'Cualm') and regardless of whether or not WeSO or any third-party is proportionalely negligent with respect to such Losses and/or Claim, provided that Buyer need not indemnify WESCO for WESCO's obligation, if any, to Buyer under Section 9 above. For the avoidance of doubt and without limitation, this indemnification obligation requires Buyer to pay any judgments against WESCO or any other indemnified party resulting from any Claim, any court costs of WESCO are used to reduce the reduced for the control of the c outer indentinities pay resulting from any claim, any count oast of wESCO or any other indemnified party in connection with any Claim, and any reasonable attorneys' fees and disbursements incurred by WESCO or any other indemnified party in WESCO's defense of any Claim. WESCO's will have the sole and exclusive right to conduct the defense of any Claim at Buyer's sole and exclusive cost and expense. Buyer's indemnification obligation does not depend on the truth or accuracy of any allegations made against WESCO, Buyer or any third party.

12. Product Suitability.

Goods sold by WESCO are designed to meet stated U.S. safety standards and regulations. Because local safety standards and regulations may vary significantly, WESCO cannot guarantee that the Goods meet all applicable requirements in each locality. Buyer assumes responsibility for compliance with such safety standards and regulations in the localities in which the Goods will be shipped, sold and used. Before purchase and use of any Goods, Buyer should review the product application, and national

and local codes and regulations, and verify that the use and installation of the Goods will comply with them

of the Goods will comply with them.

3. Ownership.

WESCO shall have and retain all right, title, and interest in and to any and all trade secrets, technical data, sales service and product plans, methodologies, techniques, designs, molds, tools, samples, systems, know-how, expertise and other proprietary information that it may use pursuant to or in connection with any Services, and Buyer shall not obtain a license to, or any other property rights in, any such WESCO property pursuant to or in connection with this Agreement.

4. Export Controls: Availability: Laws.

A Certain Goods may be subject to export controls under the laws.

- A Certain Goods may be subject to export controls under the laws, regulations and/or directives of the United States and various other countries. Buyer must comply with such laws and regulations and not export, re-export or transfer these Goods to any country to which such export, re-export, or transfer is forbidden or without first obtaining all required authorizations or licenses.
- B. Due to government regulations and product availability, not all goods sold by WESCO may be available in every area.
   C. Buyer hereby warrants and represents that it will comply with any and
- buyer needy warrants and represents that it will compty with any and all Laws with respect to the purchase, use, and operation of any and all Goods and Services. For purposes hereof, "Laws" means any international, multinational, national, foreign, federal, state, municipal, local (or other political subdivision) or administrative laws, constitutions, statutes, codes, ordinances, rules, regulations, requirements, standards, policies or guidances having the force of law, treaties, judgments or orders of any kind or nature whatsoever, including, without limitation, any judgment or principle of common

15. <u>Interpretation of the Agreement.</u> None of WESCO's or Buyer's shareholders, directors, officers, partners, managers, employees, agents or representatives have any authority to orally modify or alter in any way the terms and conditions of the Agreement. The terms, conditions, and limitations set forth in the Agreement can be terms, continuous, and infinations see forth in the Ageerinent can be modified, altered, or added to only by a subsequent written instrument signed by an authorized representative of WESCO or by language included on the face hereof. Regardless of how many times Buyer parchases, or has purchased, goods and services from WESCO by whatever means, each time Buyer accepts the Agreement, Buyer and WESCO enter into a separate agreement that will be interpreted without reference to any other agreement between Buyer and WESCO, or what Buyer may claim to be a course of decline acceptance that the participations. Buyer and between Buyer and WESCÓ, or what Buyer may claim to be a course of dealing or course of performance that has arisen between Buyer and WESCO. No inconsistent usage of trade or industry custom, if any prior to, contemporaneous with or subsequent to the making of the Agreement will waite, vary, serve to explain or serve to interpret any of the terms, conditions and limitations of the Agreement. The Agreement is the sole and exclusive agreement with respect to the matters discussed herein and the provision of Goods and Services hereunder, (except for any contemporaneous writing agreed to in writing by WESCO expressly modifying the terms and conditions hereof, which is hereby incorporated herein by reference and made a part hereof) and supersedes all prior and contemporaneous agreements and understandings, negotiations, inducements, representations or conditions, whether oral or written, whether express or implied, with respect to such whether oral or written, whether express or implied, with respect to such matters. Failure by WESCO to enforce any of the terms, conditions and limitations of the Agreement will not constitute a waiver of those terms, conditions and limitations of a waiver of any other terms, conditions and limitations or a waiver of any other terms, conditions or limitations of the Agreement, and the failure of WESCO to exercise any right (whether provided by the Agreement, law, equity, or otherwise) arising from Pause default under the Agreement all the contribute available contribute available of the terms. Buyer's default under the Agreement will not constitute a waiver of that right or any other rights.

16. Force Majeure. WESCO will not be liable for its failure to perform under the Agreement (including, without limitation, the failure to deliver any Goods or perform any Services) due to circumstances beyond its control, including, without limitation, fire, flood, earthquake, pestilence or similar catastrophe, war, act of terrorism, or strike; lack or failure of transportation facilities, shortage of suitable parts, materials or labor, any existing or future law, shortage of suitable parts, materials or labor, any existing or future law, rule, regulation, decree, treaty, proclamation, or order of any governmental agency; inability to secure fuel, materials, supplies, equipment or power at reasonable prices or in sufficient amounts, act of God or the public enemy; or any other event or cause beyond WESCO's reasonable control, including, without limitation, any delay caused by Buyer (each, a "Force Majeure Event"). If any Force Majeure Event prevents WESCO's performance of any of its obligations under the Agreement, WESCO will have the right to (a) change, terminate or cancel the Agreement, or (b) omit during the period of the Force Majeure Event all or any portion of the quantity of the Goods deliverable during that period, whereupon the total quantity deliverable under the Agreement due to a Force Majeure Event, WESCO will have the right to allocate its available supply among its customers in whatever manner WESCO deems to be fair and equitable. In no event will WESCO be obligated to purchase materials among its customers in whatever manner wisson deems to be rair and
equitable. In no event will WESCO be obligated to purchase materials
from other than its regular sources of supply in order to enable it to supply
Goods to Buyer under the Agreement. No change, cancellation or
proration by WESCO will be deemed to be a breach of any clause,
provision, term, condition, or covenant of the Agreement.

provision, term, condition, or coverant of the Agreement.

Choice of Law: Choice of Venue.

The negotiation, execution, performance, termination, interpretation and construction of the Agreement will be governed by the law of the Commonwealth of Pennsylvania, except for Pennsylvania's choice of law rules, and expressly excluding the United Nations Convention on Contracts for the International Sale of Goods. If either WESCO or Buyer brings a lawsuit or any other action arising out of the Agreement against the other next each part with gife its leavastic or other action in a state or brings a lawsuit or any other action arising out of the Agreement against the other party, such party must file its lawsuit or other action in a state or federal court located in Pittsburgh, Pennsylvania. WESCO and Buyer expressly submit to the exclusive jurisdiction of those courts and consent to verue in those courts, and WESCO and Buyer consent to extraterritorial service of process on WESCO and Buyer. In the event of litigation pertaining to any matter covered by the Agreement, each of WESCO and Buyer hereby agree to waive any right that it may have to a jury trial of any or all issues that may be raised in such litigation. Nothing contained in the Agreement will be construed to limit or waive any rights of WESCO under applicable limited States federal state or local laws. Any provision in the agreement win be construct to infinit or ware any rights of weScO under applicable United States federal, state, or local laws. Any provision of the Agreement held to be invalid, illegal or unenforceable will be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof.

18. Binding Authority. Any director, officer, employee, representative, or agent of Buyer signing or otherwise entering into this Agreement hereby represents and warrants that he or she is duly authorized to execute and enter into this Agreement on behalf of Buver.



#### Communications Supply Corporation Terms & Conditions of Sale

For and in consideration of the extension of credit by CSC to Applicant, Applicant agrees to the following Terms and Conditions.

- 1. Upon approval of this Application, CSC in its sole discretion, and notwithstanding any request of Applicant, will assign Applicant a maximum credit line and shall have the right to increase, decrease or terminate Applicant's credit privileges under this Application at any time and without notice to Applicant, except as otherwise required by law.
- 2. All purchases by Applicant of goods and/or services from CSC will be made in accordance with the Terms and Conditions of this Application and any invoice and/or other documents issued by CSC evidencing Applicant's obligations to CSC, all of which are incorporated herein by this reference. Applicant agrees and understands that CSC, at its sole discretion, may change the Terms and Conditions of this Application, its invoices and all other similar documents. CSC is not bound by any terms on Applicant's order which attempt to impose any condition at variance with CSC's terms. CSC's failure to object to provisions contained in any of Applicant's forms shall not be deemed an acceptance of any of Applicant's terms or waiver of the provisions of CSC's Terms and Conditions.
- 3. Payment of the purchase price for goods and/or services acquired from CSC shall be made pursuant to the terms set forth on each invoice, and Applicant agrees to pay all charges according to the payment terms established in said invoice. The entire outstanding balance due to CSC on all invoices shall become due in full immediately upon default in the payment of any invoice. Applicant will pay a service charge of \$50.00 or the maximum allowed by law for each check returned by Applicant's bank.
- 4. Any sales contract entered into between CSC and Applicant may not be modified or rescinded except in writing signed by Applicant and CSC. If all or part of the sales contract is terminated by such modification or rescission, Applicant in the absence of contrary written agreement between CSC and Applicant, shall pay termination charges based upon costs determined by accepted accounting principles, plus a reasonable profit on the entire quantity ordered. Costs shall include any amount CSC must pay to its suppliers due to any termination by CSC of a purchase order for products intended for Applicant.
- 5. CSC takes no responsibility for material returned without proper authorization. Where CSC gives shipping instructions for returning goods, they should be carefully followed so that credit may be issued promptly. Material returned with CSC's authorization, and in good condition, within 30 days of purchase will be credited at sales price less a 30% restocking charge and/or any applicable charges from the manufacturer.
- 6. In the event Applicant orders any inventory from CSC which CSC produces or procures for Applicant and such inventory is not readily sale able to other customers of CSC, Applicant agrees to be responsible for and pay for all such custom or specially procured inventory, notwithstanding any defenses Applicant may have as to its failure to pay for other inventory and notwithstanding Applicant's failure to use or sell such inventory.

- 7. Applicant agrees to pay interest in the amount of 1.5% per month, or the maximum rate that Applicant may lawfully contract to pay, whichever is less, and in all events calculated in accordance with applicable law, on any payment considered past due until collected. Applicant agrees to pay all costs of collection incurred by CSC, including attorneys' fees and expenses, should a default in payment or any other obligation of Applicant occur. Notwithstanding the use of the words "service charge" or similar language on any statements or invoices, said words shall be construed as interest charges on past due payments as provided and limited hereinbefore.
  - To secure the full and timely payment by Applicant to CSC of all now existing and hereafter arising amounts due CSC, Applicant hereby grants to CSC a priority security interest and lien in and to all goods, inventory, equipment and fixtures sold to Applicant by CSC from time to time, and all other assets of Applicant, including, without limitation, all of Applicant's now existing or owned or hereafter arising or acquired (a) accounts; (b) goods for sale, lease or other disposition by Applicant which have given rise to Accounts and have been returned to or repossessed or stopped in transit by Applicant; (c) chattel paper, electronic chattel Paper, tangible chattel paper, documents of title, instruments, documents, general intangibles, payment intangibles, letter of credit rights, letters of credit and supporting obligations; (d) goods, including, without limitation, inventory, equipment, fixtures, trade fixtures and vehicles; (e) investment property; (f) deposits, cash and cash equivalents and any property of Applicant now or hereafter in the possession, custody or control of CSC; (g) deposit accounts held with any depository institution; (h) all other personal property of Applicant of any kind or nature; and (i) all commercial tort claims (the "Products") and all cash and non-cash proceeds of all of the foregoing property, including, but not limited to, proceeds of all insurance policies insuring the foregoing. Applicant hereby authorizes CSC to file and perfect any and all statutory lien rights and any rights under indemnity or performance bonds at any time regardless of whether payment is due to CSC under CSC's payment terms with Applicant. Applicant shall execute and deliver to CSC, at any time and from time to time, all agreements, instruments, documents and other written matter (the "Supplemental Documentation"), that CSC may request, in form and substance acceptable to CSC, to perfect and maintain perfected CSC's priority security interest and lien in and to the Products and/or other lien or bond rights provided herein, and to otherwise consummate the transactions contemplated by this paragraph. Applicant, irrevocably, hereby makes, constitutes and appoints CSC, and all persons designated by CSC for that purpose, as Applicant's true and lawful attorney and agent-in-fact, to sign the name of Applicant on the Supplemental Documentation if required, and to deliver such Supplemental Documentation to such persons as CSC may reasonably elect. Applicant hereby authorizes CSC to prepare and file any Uniform Commercial Code ("UCC") financing statements, amendments to UCC financing statements and any other filings or recordings in all jurisdictions where CSC determines appropriate without Applicant's signature, and authorizes CSC to describe the collateral in such financing statements in any manner as CSC determines appropriate.
- **9.** This Application and all transactions between Applicant and CSC shall be governed by and interpreted in accordance with the laws and decisions of the State of Illinois. Applicant irrevocably agrees and hereby consents and submits to the non-exclusive jurisdiction of any state or federal court located in the State of Illinois, without regard to the conflicts of law provisions thereof, with regard to any actions or proceedings arising from, relating to or in connection with Applicant's obligations to CSC or this Application. Applicant waives any right it may have to change the venue of any litigation brought against it by CSC and further waives any right to trial by jury. Applicant hereby (a) agrees that CSC may, at CSC's sole option, require Applicant to arbitrate any controversy or claim arising out of or relating to this Application, any credit extended by CSC to Applicant or any other issue with the American Arbitration Association in accordance with its Commercial Arbitration rules and any judgement or award rendered in connection therewith shall be entered in any court having jurisdiction thereof, (b) consent to the Arbitration in Chicago, Illinois, and to the application of Illinois law with the exception of Illinois conflicts of laws rules, and (c) agrees to pay all costs and expenses in connection with the arbitration, including, but not limited to, arbitrator's fees, administration fees and attorneys' fees.
- 10.Applicant hereby agrees to immediately notify CSC of any sale of a significant portion of the assets or business of Applicant, or a sale of a substantial interest in the capital stock or other ownership interest of Applicant.
- 11.Applicant agrees to neither order nor accept goods from CSC while Applicant is insolvent within the meaning of Section 1-201(23) of the UCC. Every order placed, or delivery accepted, while Applicant is insolvent shall constitute a written misrepresentation of solvency to CSC within the meaning of Section 2-702(2) of the UCC.
- 12. If this Application is not approved in full or if any other adverse action is taken with respect to Applicant's credit with CSC, Applicant has the right to request within 60 days of CSC's notification of such adverse action, a statement of specific reasons for such action, which statement will be provided within 30 days of said request. The federal Equal Credit Opportunity Act prohibits creditors from discrimination against credit applicants on the basis of race, color, religion, national origin, sex, marital status or age (provided that the applicant has the capacity to enter into a binding contract); because all or part of the applicant's income derives from any public assistance programs; or because the applicant has in good faith exercised any right under the Consumer Credit Protection Act. The federal agency that administers compliance with this law concerning the creditor is the Federal Trade Commission, Washington, D.C.



CSC wishes to thank the following manufacturers for their support of <u>The</u> (it) solutions guide.





































We Bring Security To Light™











# WHY CSC? IT'S SIMPLE. OUR PEOPLE,

That's why customers choose CSC. They know our team will do whatever it takes to make them successful each and every day. They value the passion we put into everything we do, and realize – when their jobs are on the line – we'll be there with the answers they need. They view us as their trusted advisor who can help them make the transition from legacy infrastructure technologies to state-of-the-art IP solutions. It's really that simple. More and more companies turn to CSC because of our **people**, **passion** and **expertise**.

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