

## Surveillance and Monitoring Systems Lineup

2014 / June



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- The same catalog is provided for all countries. Some accessories may not be available in some countries.
- UniPhier is Panasonic's proprietary System LSI platform.

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  - Unauthorized use of products by a third party.
  - Interference or suspension of use of products by third party.

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New Technology for Analog products



New "Superior Reality" processor realizes much high efficiency, such as high resolution, color reproducibility, high sensitivity, lens distortion, auto tracking (PTZ camera only), scene change detection (fixed camera only), auto image stabilizer.

Feature names

ENHANCED Super Dynamic	2 or more areas VIQS (Variable Image Quality on Specified area)	H.264, MPEG-4 and JPEG supported	H.264 and JPEG supported
Full High Definition 1080 / 60p	Full High Definition 1080 / 30p	High Definition 720 / 60p	High Definition 720 / 30p
Day&Night (IR)	Day&Night(Electrical)	Vandal Resistant	Rain Wash Coating
Dehumidifier	IR LED Equipped	Advanced Auto Tracking	Privacy Mode
High Light Compensation	Fog compensation function	Auto Back Focus	Face Matching
Intelligent-Video Motion Detection	Body Heat Sensor	Wireless Communication	
Water and Dust Resistance: IP55	Water and Dust Resistance: IP66		
90x Extra Optical Zoom	72x Extra Optical Zoom	36x Extra Optical Zoom	36x Optical Zoom

PTZ Dome Network Cameras

Super Dynamic Weather Resistant Full HD PTZ Dome Network Camera

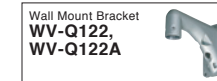
WV-SW598

(24 V AC or PoE Plus)



- 1080p HD images up to 30 fps
- Super high resolution at Full HD / 1,920 x 1,080 created by 2.4 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,920 x 1080 image size
- High sensitivity with Day & Night (IR) function: 0.5 lx (Color), 0.06 lx (B/W) at F1.6
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- **30x optical zoom**  
90x extra optical zoom at 640x360 resolution with 12x digital zoom enabling 1080x zoom.
- **360 degrees endless Panning**
- Advanced auto tracking
- Dehumidification device for use in various weather conditions
- **Rain wash coating dome cover**
- Smart phone Monitoring
- SDXC/SDHC/SD Memory card slot
- Fog and sandstorm compensation
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Optional Accessory



Super Dynamic Weather Resistant HD Dome Network Camera

WV-SW396

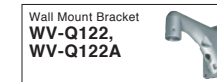
WV-SW396A (Rain Wash Coating Model)

(24 V AC or PoE Plus)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel double speed MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity with Day/Night function : 0.5 lx (Color), 0.06 lx (B/W) at F1.4 (Wide)
- **Super Dynamic** 128x wider dynamic range
- **Face Super Dynamic** technology ensures clear face image.
- **36x optical zoom** with 12x digital zoom enabling 432x zoom.  
72x extra optical zoom at VGA resolution with 12x digital zoom enabling 864x zoom.
- **360 degrees endless Panning**
- Advanced auto tracking
- Supports Power over Ethernet Plus (PoE+) IEEE 802.3at (does not support IEEE802.3af)
- Dehumidification device for use in various weather conditions
- **Rain wash coating dome cover(WV-SW396A)**
- Smart phone Monitoring
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4(UL50), NEMA 4 compliant.

Optional Accessory



Super Dynamic Weather Resistant HD Dome Network Camera

WV-SW395

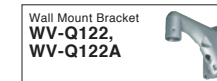
WV-SW395A (Rain Wash Coating Model)

(24 V AC or PoE Plus)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel double speed MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.5 lx (Color), 0.06 lx (B/W) at F1.6 (Wide) / 0.031 lx (Color), 0.004 lx (B/W) at F1.6 (Wide) with Sens Up 16x
- **Super Dynamic** 128x wider dynamic range
- **Face Super Dynamic** technology ensures clear face image.
- 18x optical zoom with 12x digital zoom enabling 216x zoom.  
36x extra optical zoom at VGA resolution with 12x digital zoom enabling 432x zoom.
- Panning with auto flip function can be performed 0 to 360 degrees
- Auto tracking
- Supports Power over Ethernet Plus (PoE+) IEEE 802.3at (does not support IEEE 802.3af)
- Dehumidification device for use in various weather conditions
- **Rain wash coating dome cover(WV-SW395A)**
- Smart phone Monitoring
- IP66 rated water and dust resistant.  
Compatible with IEC60529 measurement standard.

Optional Accessory





PTZ Dome Network Cameras

Super Dynamic Full HD PTZ Dome Network Camera  
**WV-SC588**  
(12 V DC or PoE)



- 1080p HD images up to 30 fps
- Super high resolution at Full HD / 1,920 x 1,080 created by 2.4 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,920 x 1080 image size
- High sensitivity with Day & Night (IR) function: 0.5 lx (Color), 0.06 lx (B/W) at F1.6
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- **30x optical zoom**  
90x extra optical zoom at 640x360 resolution with 12x digital zoom enabling 1080x zoom.
- **360 degrees endless Panning**
- Advanced auto tracking
- Smart phone Monitoring
- SDXC/SDHC/SD Memory card slot
- Fog and sandstorm compensation

Optional Accessories



Super Dynamic HD Dome Network Camera  
**WV-SC385**  
(12 V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel double speed MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.5 lx (Color), 0.06 lx (B/W) at F1.6 (Wide) / 0.031 lx (Color), 0.004 lx (B/W) at F1.6 (Wide) with Sens Up 16x
- **Super Dynamic** 128x wider dynamic range
- **Face Super Dynamic** technology ensures clear face image.
- 18x optical zoom with 12x digital zoom enabling 216x zoom.
- 36x extra optical zoom at VGA resolution with 12x digital zoom enabling 432x zoom.
- Panning with auto flip function can be performed 0 to 360 degrees
- Auto tracking
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring
- Desktop/Ceiling position choice and various optional brackets for versatile installations

Optional Accessories

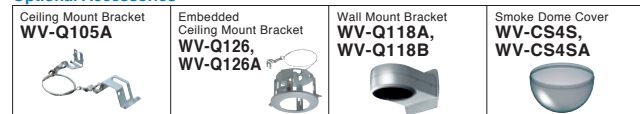


Super Dynamic HD Dome Network Camera  
**WV-SC386**  
(12 V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel double speed MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity with Day/Night function : 0.5 lx (Color), 0.06 lx (B/W) at F1.4 (Wide)
- **Super Dynamic** 128x wider dynamic range
- **Face Super Dynamic** technology ensures clear face image.
- **36x optical zoom** with 12x digital zoom enabling 432x zoom.
- 72x extra optical zoom at VGA resolution with 12x digital zoom enabling 864x zoom.
- **360 degrees endless Panning**
- Advanced auto tracking
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Optional Accessories



HD Dome Network Camera  
**WV-SC384**  
(12 V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.6 lx (Color), 0.5 lx (B/W) at F1.6 (Wide) / 0.038 lx (Color), 0.031 lx (B/W) at F1.6 (Wide) with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- **Face Wide Dynamic Range** technology ensures clear face image.
- 18x optical zoom with 8x digital zoom enabling 144x zoom.
- 36x extra optical zoom at VGA resolution with 8x digital zoom enabling 288x zoom.
- Panning with auto flip function can be performed 0 to 360 degrees
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Optional Accessories



Fixed Dome Network Cameras

Super Dynamic Full HD Vandal Resistant & Waterproof Dome Network Camera

**WV-SFV631L**  
(12 V DC or PoE)



- **1080p** Full HD images up to **60 fps**<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Maximum Screen Size** is 2,048 x 1,536\* @30fps, H.264
- \* Used by super resolution techniques

- **Enhanced Super Dynamic**<sup>\*1</sup> and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.04 lx (Color), 0.01 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- **High Speed ABF (Auto Back Focus) and Motorized Zoom** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Double SDXC/SDHC/SD Memory card slots**
- IP66 rated water and dust resistant.
- Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Vandal resistant mechanism for high reliability



Optional Accessories



Super Dynamic Full HD Vandal Resistant & Waterproof Dome Network Camera

**WV-SFV631LT** Launches in July 2014  
(12 V DC or PoE)



- **1080p** Full HD images up to **60 fps**<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Maximum Screen Size** is 2,048 x 1,536\* @30fps, H.264
- \* Used by super resolution techniques

- **Enhanced Super Dynamic**<sup>\*1</sup> and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.06 lx (Color), 0.015 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- **High Speed ABF (Auto Back Focus) and Motorized Zoom** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Vari Focal Length : 9.13 ~ 21.87 mm**
- **Double SDXC/SDHC/SD Memory card slots**
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Vandal resistant mechanism for high reliability



Optional Accessories



Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera

**WV-SFV611L**  
(12 V DC or PoE)



- **720p** HD images up to **60 fps**<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**<sup>\*1</sup> and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.

- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- **High Speed ABF (Auto Back Focus) and Motorized Zoom** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Double SDXC/SDHC/SD Memory card slots**
- IP66 rated water and dust resistant.
- Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Vandal resistant mechanism for high reliability



Optional Accessories



Super Dynamic Full HD Vandal Resistant Dome Network Camera

**WV-SW559**  
(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30 fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1 Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (IR) function: 0.5 lx (Color), 0.06 lx (B/W) at F1.3
- IP66 rated water and dust resistant.
- Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- Smart phone Monitoring
- Full duplex bi-directional audio
- SDXC/SDHC/SD Memory card slot

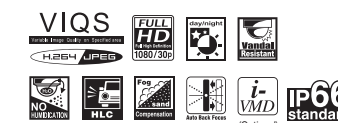


Optional Accessories



Super Dynamic Full HD Vandal Resistant Dome Network Camera

**WV-SW558**  
(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1 Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (Electrical) function: 0.5 lx (Color), 0.3 lx (B/W) at F1.3
- IP66 rated water and dust resistant.
- Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- Smart phone Monitoring



Optional Accessories





Fixed Dome Network Cameras

Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera

### WV-SFV311

(12 V DC or PoE)



- 720p HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- Multiple H.264 (High profile) streams (max. 4 streams) and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- Enhanced Super Dynamic<sup>1</sup> and ABS (Adaptive Black Stretch) technologies deliver 133 dB wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night(IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- High Speed ABF (Auto Back Focus) ensures easy installation.
- Fog compensation function equipped as standard.
- Super Chroma Compensation function realizes a better color reproducibility even in low illumination.
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Vandal resistant mechanism for high reliability

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera

### WV-SFV310

(12 V DC or PoE)



- 720p HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- Multiple H.264 (High profile) streams (max. 4 streams) and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- Enhanced Super Dynamic<sup>1</sup> and ABS (Adaptive Black Stretch) technologies deliver 133 dB wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night(Electrical) function: 0.01 lx (Color), 0.008 lx (B/W) at F1.3
- Fog compensation function equipped as standard.
- Super Chroma Compensation function realizes a better color reproducibility even in low illumination
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Vandal resistant mechanism for high reliability

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Vandal Resistant Dome Network Camera

### WV-SW355

(12 V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- High sensitivity: 0.3 lx (Color), 0.05 lx (B/W) at F1.6 (Wide) / 0.019 lx(Color),0.003 lx (B/W) at F1.6 (Wide) with Sens Up 16x
- Super Dynamic 128x wider dynamic range
- Face Super Dynamic technology ensures clear face image
- Up to 7.2x extra optical zoom at VGA resolution
- VIQS (Variable Image Quality on Specified area) technology allows the designated area to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Optional Accessories



Super Dynamic Vandal Resistant Dome Network Camera

### WV-SW352

(12 V DC or PoE)



- Super high resolution at SVGA/800 x 600 created by newly developed 1.3 Megapixel high sensitivity MOS Sensor
- High sensitivity: 0.2 lx (Color), 0.04 lx (B/W) at F1.6 (Wide) / 0.013 lx(Color), 0.002 lx (B/W) at F1.6 (Wide) with Sens Up 16x
- Super Dynamic 128x wider dynamic range
- Face Super Dynamic technology ensures clear face image
- Up to 7.2x extra optical zoom at VGA resolution
- VIQS (Variable Image Quality on Specified area) technology allows the designated area to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Optional Accessories



Super Dynamic HD Vandal Resistant Wall Mount Network Camera

### WV-SW115

(PoE)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- Super Dynamic and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- Face Super Dynamic technology ensures clear face image.
- 2x extra zoom at VGA resolution



- Supports Power over Ethernet IEEE 802.3af
- Vandal resistant mechanism for high reliability
- Low profile design for discrete installation
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Super Dynamic Full HD Vandal Resistant Dome Network Camera

### WV-SW158

(PoE)



#### VIQS



- 1080p HD images up to 30 fps
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor
- Full frame (Up to 30 fps) transmission at 1,920 x 1080 image size
- High sensitivity with Day & Night (Electrical) function:1.2 lx (Color), 0.9 lx (B/W) at F2.2
- Super Dynamic and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- Face Super Dynamic technology ensures clear face image.
- 3x extra zoom at 640 x 360 resolution
- Vandal resistant mechanism for high reliability
- Low profile design for discrete installation
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 100 °, Vertical: 81 °)
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

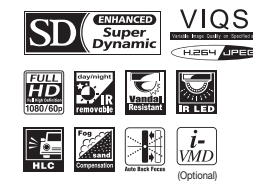
Optional Accessory



Super Dynamic Full HD Vandal Resistant Dome Network Camera

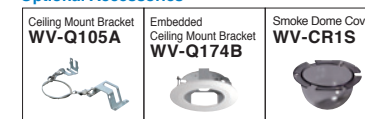
### WV-SFR631L

(12 V DC or PoE)



- 1080p Full HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams (max. 4 streams) and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- Maximum Screen Size is 2,048 x 1,536" @30fps, H.264
- \* Used by super resolution techniques
- Enhanced Super Dynamic<sup>1</sup> and ABS (Adaptive Black Stretch) technologies deliver 133 dB wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function:0.04 lx (Color), 0.01 lx (B/W) at F1.3
- IR LED equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- IR LED is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- High Speed ABF (Auto Back Focus) and Motorized Zoom ensures easy installation.
- Fog compensation function equipped as standard.
- Double SDXC/SDHC/SD Memory card slots
- Vandal resistant mechanism for high reliability

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Vandal Resistant Dome Network Camera

### WV-SW155 / SW155M

(PoE)



WV-SW155  
\*Network connector section (RJ45 connector)



WV-SW155M  
\*Network connector section (M12 connector)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity with Day & Night (Electrical) function: 0.8 lx (Color), 0.6 lx (B/W) at F2.2
- Super Dynamic and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- Face Super Dynamic technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Supports Power over Ethernet IEEE 802.3af
- Vandal resistant mechanism for high reliability
- Low profile design for discrete installation
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)
- IP66 rated water and dust resistant.

Optional Accessory



Super Dynamic Vandal Resistant Dome Network Camera

### WV-SW152 / SW152M

(PoE)



WV-SW152  
\*Network connector section (RJ45 connector)



WV-SW152M  
\*Network connector section (M12 connector)



- Super high resolution at SVGA/800 x 600 created by 1.3 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at SVGA (800 x 600) image size
- High sensitivity with Day & Night (Electrical) function: 0.6 lx (Color), 0.4 lx (B/W) at F2.2
- Super Dynamic and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- Face Super Dynamic technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Supports Power over Ethernet IEEE 802.3af
- Vandal resistant mechanism for high reliability
- Low profile design for discrete installation
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)
- IP66 rated water and dust resistant.

Optional Accessory





Fixed Dome Network Cameras

Super Dynamic Full HD Vandal Resistant Dome Network Camera

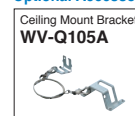
**WV-SF549**

(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (IR) function: 0.5 lx (Color), 0.06 lx (B/W) at F1.3
- Vandal resistant mechanism for high reliability
- Smart phone Monitoring
- Full duplex bi-directional audio
- SDXC/SDHC/SD Memory card slot

Optional Accessory



Super Dynamic Full HD Vandal Resistant Dome Network Camera

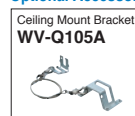
**WV-SF548**

(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (Electrical) function: 0.5 lx (Color), 0.3 lx (B/W) at F1.3
- Vandal resistant mechanism for high reliability
- Smart phone Monitoring

Optional Accessory



Super Dynamic HD Vandal Resistant Dome Network Camera

**WV-SFR311**

(12 V DC or PoE)



- 720p HD images up to 60 fps\*1
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**\*1 and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **High Speed ABF (Auto Back Focus)** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- Vandal resistant mechanism for high reliability

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Vandal Resistant Dome Network Camera

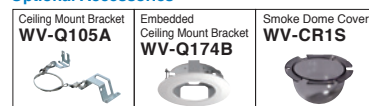
**WV-SFR310**

(12 V DC or PoE)



- 720p HD images up to 60 fps\*1
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**\*1 and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (Electrical) function: 0.01 lx (Color), 0.008 lx (B/W) at F1.3
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- Vandal resistant mechanism for high reliability

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

HD Vandal Resistant Dome Network Camera

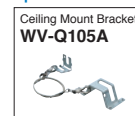
**WV-SF346**

(12 V DC or PoE)



- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- High resolution recording by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.3 lx (Color), 0.2 lx (B/W) at F1.3 (Wide) / 0.019 lx (Color), 0.013 lx (B/W) at F1.3 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- ABF (Auto Back Focus) ensures easy installation and stable focus in both color and B/W modes.
- Smart phone Monitoring

Optional Accessory



Vandal Resistant Dome Network Camera

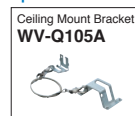
**WV-SF342**

(12 V DC or PoE)



- Super high resolution at SVGA/800 x 600 created by newly developed 1.3 Megapixel high sensitivity MOS Sensor
- Full frame (Up to 30 fps) transmission at SVGA/800 x 600 image size
- High sensitivity: 0.2 lx (Color), 0.13 lx (B/W) at F1.3 (Wide) / 0.013 lx (Color), 0.009 lx (B/W) at F1.3 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Optional Accessory



Super Dynamic Full HD Dome Network Camera

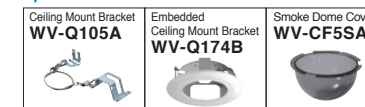
**WV-SFN631L**

(12 V DC or PoE)



- 1080p Full HD images up to 60 fps\*1
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**\*1 and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.04 lx (Color), 0.01 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- **High Speed ABF (Auto Back Focus)** and **Motorized Zoom** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Double SDXC/SDHC/SD Memory card slots**

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Dome Network Camera

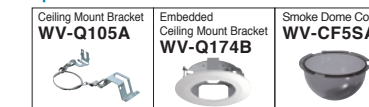
**WV-SFN611L**

(12 V DC or PoE)



- 720p HD images up to 60 fps\*1
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**\*1 and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- **High Speed ABF (Auto Back Focus)** and **Motorized Zoom** ensures easy installation.
- **Fog compensation function** equipped as standard.
- **Double SDXC/SDHC/SD Memory card slots**

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic Full HD Dome Network Camera

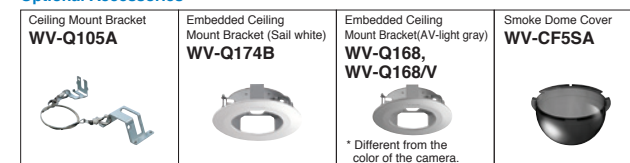
**WV-SF539**

(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30 fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (IR) function: 0.5 lx (Color), 0.06 lx (B/W) at F1.3
- Smart phone Monitoring
- Full duplex bi-directional audio
- SDXC/SDHC/SD Memory card slot

Optional Accessories



\* Different from the color of the camera.

Super Dynamic Full HD Dome Network Camera

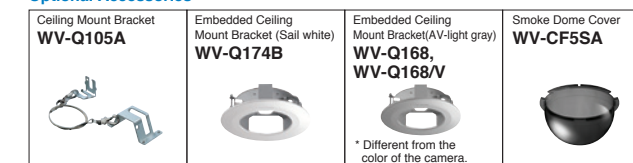
**WV-SF538**

(12 V DC or PoE)



- 1080p Full HD images up to 30 fps and 360p image up to 30 fps simultaneously.
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9])
- High sensitivity with Day & Night (Electrical) function: 0.5 lx (Color), 0.3 lx (B/W) at F1.3
- Smart phone Monitoring

Optional Accessories



\* Different from the color of the camera.



Fixed Dome Network Cameras

Super Dynamic HD Dome Network Camera

**WV-SFN311L**

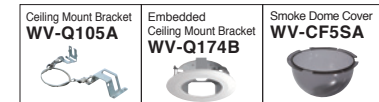
(12 V DC or PoE)

Launches in July 2014



- 720p HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier<sup>®</sup>", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic<sup>1</sup>** and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera
- **High Speed ABF (Auto Back Focus)** ensures easy installation.
- **VIQS** (Variable Image Quality on Specified area) technology allows the designated **eight areas** to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- Full duplex bi-directional audio

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Dome Network Camera

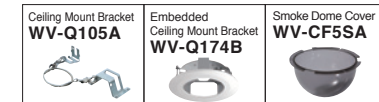
**WV-SFN311**

(12 V DC or PoE)



- 720p HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier<sup>®</sup>", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic<sup>1</sup>** and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **High Speed ABF (Auto Back Focus)** ensures easy installation.
- **VIQS** (Variable Image Quality on Specified area) technology allows the designated **eight areas** to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- Full duplex bi-directional audio

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Dome Network Camera

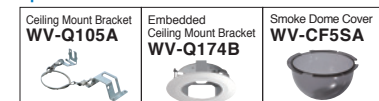
**WV-SFN310**

(12 V DC or PoE)



- 720p HD images up to 60 fps<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier<sup>®</sup>", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic<sup>1</sup>** and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (Electrical) function: 0.01 lx (Color), 0.008 lx (B/W) at F1.3
- **VIQS** (Variable Image Quality on Specified area) technology allows the designated **eight areas** to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- Full duplex bi-directional audio

Optional Accessories



\*1 Super Dynamic function is automatically set off on 60 fps mode.

HD Dome Network Camera

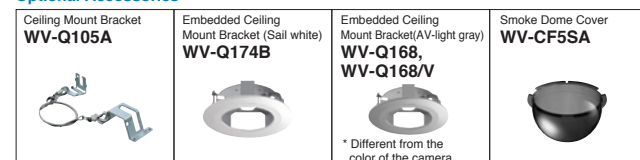
**WV-SF336**

(12 V DC or PoE)



- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- High resolution recording by "UniPhier<sup>®</sup>"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.3 lx (Color), 0.2 lx (B/W) at F1.3 (Wide) / 0.019 lx (Color), 0.013 lx (B/W) at F1.3 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face Image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- ABF (Auto Back Focus) ensures easy installation
- Smart phone Monitoring

Optional Accessories



HD Dome Network Camera

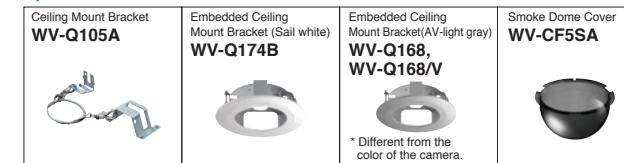
**WV-SF335**

(12 V DC or PoE)



- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- High resolution recording by "UniPhier<sup>®</sup>"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.3 lx (Color), 0.2 lx (B/W) at F1.3 (Wide) / 0.019 lx (Color), 0.013 lx (B/W) at F1.3 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face Image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Optional Accessories



Dome Network Camera

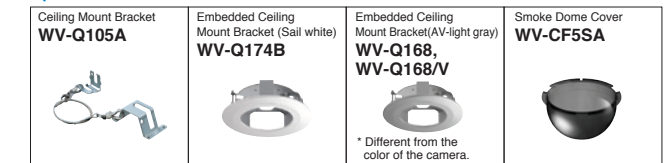
**WV-SF332**

(12 V DC or PoE)



- Progressive scan 1.3 Megapixel MOS Sensor
- High resolution recording by "UniPhier<sup>®</sup>"
- Up to 30 fps at SVGA/800 x 600 image size
- High sensitivity: 0.2 lx (Color), 0.13 lx (B/W) at F1.3 (Wide) / 0.013 lx (Color), 0.009 lx (B/W) at F1.3 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face Image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Optional Accessories



Super Dynamic Full HD Dome Network Camera

**WV-SF138**

(PoE)



- 1080p HD images up to 30 fps
- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor
- High sensitivity with Day & Night (Electrical) function: 1.2 lx (Color), 0.9 lx (B/W) at F2.2
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** technology ensures clear face image.
- 3x extra zoom at 640 x 360 resolution
- Low profile design for discrete installation
- Wide coverage (Horizontal: 100 °, Vertical: 81 °)

Optional Accessory



HD Dome Network Camera

**WV-SF135**

(PoE)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- High resolution recording by "UniPhier<sup>®</sup>"
- High sensitivity with Day & Night (Electrical) function 0.8 lx (Color), 0.6 lx (B/W) at F2.2
- 2x extra zoom at VGA resolution
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Low profile design for discrete installation
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)

Optional Accessory



Dome Network Camera

**WV-SF132**

(PoE)



- Progressive scan 320,000 Pixel MOS Sensor
- High resolution recording by "UniPhier<sup>®</sup>"
- High sensitivity with Day & Night (Electrical) function 2.0 lx (Color), 1.3 lx (B/W) at F2.9
- Supports Power over Ethernet (PoE) IEEE 802.3af
- Low profile design for discrete installation

Optional Accessory





Fixed Network Cameras

Super Dynamic Weather Resistant HD Network Camera

**WV-SW316L**

(12V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- **Face Super Dynamic** technology ensures clear face image.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver
- Up to 6.4x Extra Optical Zoom at VGA resolution.
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- Smart phone Monitoring
- **Fog compensation function** equipped as standard.
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Super Dynamic Weather Resistant HD Network Camera

**WV-SW316**

(12V DC or PoE)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- **Face Super Dynamic** technology ensures clear face image.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- Up to 6.4x Extra Optical Zoom at VGA resolution.
- Smart phone Monitoring
- **Fog compensation function** equipped as standard.
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Super Dynamic Weather Resistant HD Network Camera

**WV-SW314**

(PoE:NTSC)



- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- **Face Super Dynamic** technology ensures clear face image.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver
- Up to 7.2x Extra Optical Zoom at VGA resolution.
- Smart phone Monitoring
- **Fog compensation function** equipped as standard.
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.

Super Dynamic Full HD Network Camera

**WV-SPN631** Launches in July 2014

(12V DC or PoE)



- **1080p** Full HD images up to **60 fps**<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- Maximum Screen Size is 2,048 x 1,536<sup>\*</sup> @30fps, H.264
- <sup>\*</sup> Used by super resolution techniques
- **Enhanced Super Dynamic**<sup>\*1</sup> and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.04 lx (Color), 0.01 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.(Optional)
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.(Optional)
- **High Speed ABF (Auto Back Focus)** ensures easy installation.
- **Double SDXC/SDHC/SD Memory card slots**
- **Fog compensation function** equipped as standard.

Optional Accessories



<sup>\*1</sup> Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic HD Network Camera

**WV-SPN611** Launches in July 2014

(12V DC or PoE)



- **720p** HD images up to **60 fps**<sup>\*1</sup>
- Approximate 1/3 inches, high sensitivity MOS Sensor
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier", Panasonic's proprietary System LSI platform.
- **Enhanced Super Dynamic**<sup>\*1</sup> and ABS (Adaptive Black Stretch) technologies deliver **133 dB** wider dynamic range compared to conventional cameras.
- High sensitivity with Day & Night (IR) function: 0.01 lx (Color), 0.003 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.(Optional)
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.(Optional)
- **High Speed ABF (Auto Back Focus)** ensures easy installation.
- **Double SDXC/SDHC/SD Memory card slots**
- **Fog compensation function** equipped as standard.

Optional Accessories



<sup>\*1</sup> Super Dynamic function is automatically set off on 60 fps mode.

Super Dynamic Full HD Network Camera

**WV-SP509**

(12V DC or PoE)



- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- 1080p Full HD images up to 30 fps and 360p image up to 30 fps simultaneously.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9] )
- High sensitivity with Day & Night (IR) function:0.5 lx (Color), 0.06 lx (B/W) at F1.4
- ABF ensures stable focus in both color and B/W modes.
- Smart phone Monitoring
- Full duplex bi-directional audio
- SDXC/SDHC/SD Memory card slot

HD Network Camera

**WV-SP306**

(12V DC or PoE)



- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- Multiple H.264 (High Profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.3 lx (Color), 0.05 lx (B/W) at F1.4 / 0.019 lx (Color), 0.003 lx (B/W) at F1.4 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- ABF (Auto Back Focus) ensures easy installation
- Smart phone Monitoring

HD Network Camera

**WV-SP105**

(12V DC or PoE)

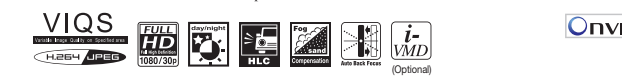


- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- Multiple H.264 (High Profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity : 0.8 lx (Color), 0.4 lx (B/W) at F2.2 / 0.05 lx (Color), 0.03 lx (B/W) at F2.2 (Wide) with Sens Up 16x
- 2x extra zoom at VGA resolution
- Dual H.264 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Super Dynamic Full HD Network Camera

**WV-SP508**

(12V DC or PoE)

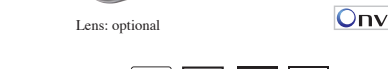


- Super high resolution at Full HD/1,920 x 1,080 created by 3.1Megapixel high sensitivity MOS Sensor.
- 1080p Full HD images up to 30 fps and 360p image up to 30 fps simultaneously.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- 3x Extra optical zoom at 360p resolution. (Picture Mode : 2 Mega pixel [16:9] )
- High sensitivity with Day & Night (Electrical) function:0.5 lx (Color), 0.3 lx (B/W) at F1.4
- ABF ensures stable focus in both color and B/W modes.
- Smart phone Monitoring

HD Network Camera

**WV-SP305**

(12V DC or PoE)

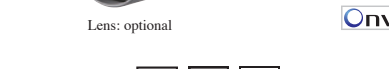


- 720p HD images up to 30 fps
- Progressive scan 1.3 Megapixel MOS Sensor
- Multiple H.264 (High Profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- High sensitivity: 0.2 lx (Color), 0.13 lx (B/W) at F1.4 / 0.013 lx (Color), 0.009 lx (B/W) at F1.4 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared to conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Network Camera

**WV-SP302**

(12V DC or PoE)



- Progressive scan 1.3 Megapixel MOS Sensor
- Multiple H.264 (High Profile) streams by "UniPhier"
- Up to 30 fps at SVGA/800 x 600 image size
- High sensitivity: 0.2 lx (Color), 0.13 lx (B/W) at F1.4 / 0.013 lx (Color), 0.009 lx (B/W) at F1.4 with Sens Up 16x
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared to conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- 2x extra zoom at VGA resolution
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring

Network Camera

**WV-SP102**

(12V DC or PoE)



- Progressive scan 320,000 Pixel MOS Sensor
- Multiple H.264 (High Profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at VGA(640 x 480) image size
- High sensitivity : 2.0 lx (Color), 1.3 lx (B/W) at F2.0 / 0.3 lx (Color), 0.16 lx (B/W) at F2.0 (Wide) with Sens Up 8x
- Dual H.264 and JPEG simultaneous stream output
- Power over Ethernet (PoE) IEEE 802.3af
- Smart phone Monitoring



360-degree Network Cameras

360-degree Super Dynamic Vandal Resistant Dome Network Camera

**WV-SW458**  
**WV-SW458M**  
(12 V DC or PoE)



- 360° monitoring with a wide variety of transmission modes: Panorama, Double Panorama, Quad PTZ, Single PTZ, and Quad streams (H.264/VGA)
- 1080p Full HD images up to 30 fps.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by enhanced "UniPhier".
- Smooth PTZ operation without mechanical action
- Built-in distortion correction function
- A fisheye lens control function realizes intelligible screen operation intuitively.
- Smartphone monitoring : Direct camera control from smart phone
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- High sensitivity with Day/Night (Electrical) function: 1.5 lx (Color), 1.2 lx (B/W) at F2.4
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155



\*Network connector section (RJ45 connector) **ONVIFS**



\*Network connector section (M12 connector) **ONVIFS**

360-degree Super Dynamic Vandal Resistant Dome Network Camera

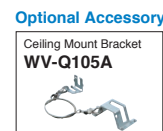
**WV-SF448E**  
(12 V DC or PoE)



- 360° monitoring with a wide variety of transmission modes: Panorama, Double Panorama, Quad PTZ, Single PTZ, and Quad streams (H.264/VGA)
- 1080p Full HD images up to 30 fps.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by enhanced "UniPhier".
- Smooth PTZ operation without mechanical action
- Built-in distortion correction function
- A fisheye lens control function realizes intelligible screen operation intuitively.
- Smartphone monitoring : Direct camera control from smart phone
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- High sensitivity with Day/Night (Electrical) function: 1.5 lx (Color), 1.2 lx (B/W) at F2.4
- Digital Noise Reduction: 3D-DNR ensures
- Vandal resistant mechanism for high reliability
- **Privacy Mode**: The lens unit can be moved and hidden so that images cannot be displayed. When the Privacy mode is used, a black image is transmitted to protect privacy.



**ONVIFS**



Optional Accessory  
Ceiling Mount Bracket **WV-Q105A**

360-degree Super Dynamic Dome Network Camera

**WV-SF438**  
(12 V DC or PoE)



- 360° monitoring with a wide variety of transmission modes: Panorama, Double Panorama, Quad PTZ, Single PTZ, and Quad streams (H.264/VGA)
- 1080p Full HD images up to 30 fps.
- Combining enhanced "UniPhier", Panasonic's proprietary System LSI platform and **2 areas VIQS** (Variable Image Quality on Specified area) function can decrease network bandwidth.
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by enhanced "UniPhier".
- Smooth PTZ operation without mechanical action
- Built-in distortion correction function
- A fisheye lens control function realizes intelligible screen operation intuitively.
- Smartphone monitoring : Direct camera control from smart phone
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- High sensitivity with Day/Night (Electrical) function: 1.5 lx (Color), 1.2 lx (B/W) at F2.4



**ONVIFS**



Optional Accessory  
Ceiling Mount Bracket **WV-Q105A**

360-degree Network Microphone

360-degree Network Microphone

**WV-SMR10**  
(12V DC or PoE)

Launches in August 2014



- **360-degree audio monitoring**  
With microphone arrays, 360-degree audio monitoring from a specified direction is possible.
- **Specifying a desired direction on a camera image**  
While watching the 360-degree Network Camera (WV-SW458/WV-SF448E/WV-SF438) image, audio from the desired location can be freely specified by clicking on that location.
- **Synchronizing with the Network Disk Recorder**  
After recording audio to a Network Disk Recorder\*, the sound collecting direction can be specified while playing back the recorded image of the 360-degree Network Camera.  
\*Models WJ-NV300 (as of August 2014) and WJ-ND400 (as of October 2014) are supported
- **Can be installed with a 360-degree Network Camera as one unit**  
The microphone can be neatly installed in one place by integrating it with a Panasonic 360-degree Network Camera.



360-degree Network Microphone **WV-SMR10**  
With 360-degree Network Camera **WV-SF438**

**WV-SMR10N3**

Launches in August 2014



Pan / tilt Network Cameras

Outdoor Pan-tilt Network Camera

**WV-SW175**  
(12V DC or PoE)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- 2x extra zoom at VGA resolution
- Pan-tilt and Preset Map Shot function realizes wide range monitoring.  
(Horizontal angle:180° Vertical angle 123°)
- IP55 rated water and dust resistant. Compatible with IEC60529
- Smart phone Monitoring

Outdoor Pan-tilt Wireless Network Camera

**WV-SW174W**  
(12V DC)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- Pan-tilt and Preset Map Shot function realizes wide range monitoring.  
(Horizontal angle:180° Vertical angle 123°)
- 2x extra zoom at VGA resolution
- Wireless LAN function (IEEE802.11 n/g/b)
- Smart phone Monitoring

Outdoor Pan-tilt Network Camera

**WV-SW172**  
(12V DC or PoE)



- 1.3 Megapixel high sensitivity MOS Sensor
- Full frame (Up to 30 fps) transmission at SVGA (800 x 600) image size
- Pan-tilt and Preset Map Shot function realizes wide range monitoring.  
(Horizontal angle:180° Vertical angle 123°)
- 2x extra zoom at VGA resolution
- IP55 rated water and dust resistant. Compatible with IEC60529
- Smart phone Monitoring

Pan-tilt Network Camera

**WV-ST165**  
(12V DC or PoE)



- 720p HD images up to 30 fps
- 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size
- 2x extra zoom at VGA resolution
- Pan-tilt and Preset Map Shot function realizes wide range monitoring.  
(Horizontal angle:180° Vertical angle 123°)
- Smart phone Monitoring



**ONVIFS**

Pan-tilt Network Camera

**WV-ST162**  
(12V DC or PoE)



- 1.3 Megapixel high sensitivity MOS Sensor
- Multiple H.264 (High profile) streams by "UniPhier"
- Full frame (Up to 30 fps) transmission at SVGA (800 x 600) image size
- 2x extra zoom at VGA resolution
- Pan-tilt and Preset Map Shot function realizes wide range monitoring.  
(Horizontal angle:180° Vertical angle 123°)
- Smart phone Monitoring



**ONVIFS**

Home Network Cameras

Pan-tilt Network Camera

**BL-VT164**  
9 V DC (Use only with Panasonic AC adapter)



- 720p HD images up to 30 fps
- 1.0 Megapixel high sensitivity CMOS Sensor
- Full frame (Up to 30 fps) transmission at 1,280 x 720 image size
- H.264 and JPEG dual stream output
- High sensitivity with Day & Night (Electrical) function: 0.9 lx (Color), 0.6 lx (B/W) at F2.8
- 1.5x extra zoom at VGA resolution
- Remote Pan and Tilt control
- Smart phone Monitoring



**ONVIFS**

Pan-tilt Wireless Network Camera

**BL-VT164W**  
9 V DC (Use only with Panasonic AC adapter)



- 720p HD images up to 30 fps
- 1.0 Megapixel high sensitivity CMOS Sensor
- Full frame (Up to 30 fps) transmission at 1,280 x 720 image size
- H.264 and JPEG dual stream output
- High sensitivity with Day & Night (Electrical) function: 0.9 lx (Color), 0.6 lx (B/W) at F2.8
- 1.5x extra zoom at VGA resolution
- Remote Pan and Tilt control
- Smart phone Monitoring
- Wireless Communication (IEEE 802.11n/b/g)
- WPS (Wi-Fi Protected Setup) function



**ONVIFS**

Wireless Network Camera

**BL-VP104W**  
6.5 V DC (Use only with Panasonic AC adapter)



- 720p HD images up to 30 fps
- 1.0 Megapixel high sensitivity CMOS Sensor
- High sensitivity with Day & Night (Electrical) function: 0.9 lx (Color), 0.6 lx (B/W) at F2.8
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- 1.5x extra zoom at VGA resolution
- Wireless LAN function (IEEE802.11 n/b/g) (BL-VP104W)
- WPS (Wi-Fi Protected Setup) function (BL-VP104W)
- Smartphone monitoring

Network Camera

**BL-VP104**  
6.5 V DC (Use only with Panasonic AC adapter)



Network Camera

**BL-VP101**  
6.5 V DC (Use only with Panasonic AC adapter)



- 0.32 Megapixel high sensitivity CMOS Sensor
- High sensitivity with Day & Night (Electrical) function: 0.9 lx (Color), 0.6 lx (B/W) at F2.8
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- 4x digital zoom controlled by browser
- Smartphone Monitoring



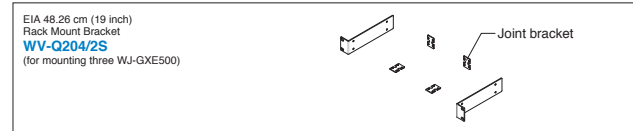
Network Video Encoder / Decoder

4 CH H.264 Video Encoder  
**WJ-GXE500**  
(12 V DC or PoE)



- Up to 4 analog cameras can be connected.
- Panasonic Camera Control
- Full frame H.264 transmission for each 4 channels
- Dual H.264 / MPEG-4 and JPEG simultaneous stream output at VGA/D1 image size
- Progressive Output
- Bi-directional audio (1CH)
- Power over Ethernet (PoE) IEEE 802.3af

Optional Accessory



1 CH H.264 Video Encoder  
**WJ-GXE100**  
(12 V DC or PoE)



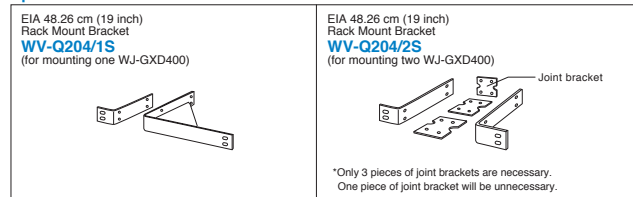
- Full frame H.264 transmission
  - H.264 and JPEG triple encoding: A total of 3 outputs, comprising of 2 H.264 outputs and 1 JPEG output, can be provided.
  - Motion adaptive interlace/progressive conversion allows every frame to be clear even when the subject is moving.
  - Open command conversion table for RS485 ensures the control of various manufacture's PTZ camera.
  - Camera title display: Up to 20 alphanumeric characters embedded in the image
  - PoE. The power will be supplied by simply connecting a LAN cable. (IEEE802.3af compliant) 12 V DC power supply\* is also available.
  - Small size. And can be installed into the outdoor housing with a camera.
- \* For UL listed model(s), only connect 12 V DC Class 2 power supply.

Multi Channel High Definition Video Decoder  
**WJ-GXD400**  
(12 V DC, 100 V -240 V AC adaptor attached)



- Up to 256 cameras, including cameras connected to the i-Pro Network Video Encoder (WJ-GXE500), can be registered
- HDMI interface supporting 1,920 x 1,080 display size
- 1x 4VGA image with 2x VGA images or 6x VGA images can be displayed in multiscreeen mode
- Each of VGA images can be displayed at 25 frames/s.
- Superior reliability and installation flexibility with an embedded OS
- Up to 64 camera groups can be registered and called up in response to power on, group sequence and schedule program.

Optional Accessories



Network Converter

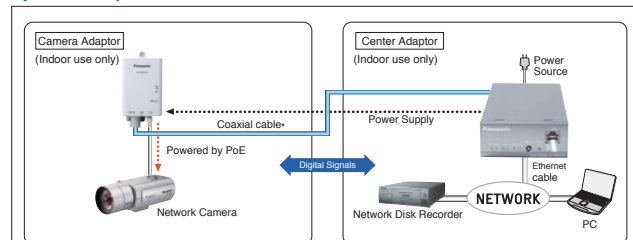
Coaxial-LAN Converter with PoE function  
**BY-HPE11KT** (Indoor use only)



(Camera Adaptor) (Center Adaptor)

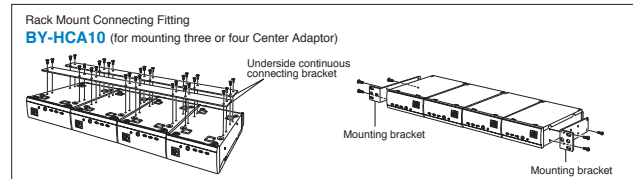
- Easy migration from analog to IP system with existing coaxial cable
- Power over Ethernet (PoE) IEEE 802.3af
- Up to 500 m (1,640 feet 5 inches)\*1 for PoE connections, and 2 km (6,561 feet 8 inches) for non-PoE connections. (When used with RG-6/U coaxial cable.)
- 35 Mbps or over for TCP\*2, and 45 Mbps or over for UDP connections. (When used with RG-6/U coaxial cable, and for distances under 2 km [6,561 feet 8 inches].)
- No setup required
- \*1 When connected to a Panasonic network camera. \*2 Measured using Linux® FTP.

System Example



\*With PoE function: 500 m (1,640 feet 5 inches)/Without PoE function: 2 km (6,561 feet 8 inches)

Optional Accessory



Application for Smartphone / Tablet PC



**Panasonic Security Viewer Ver.2.1\***

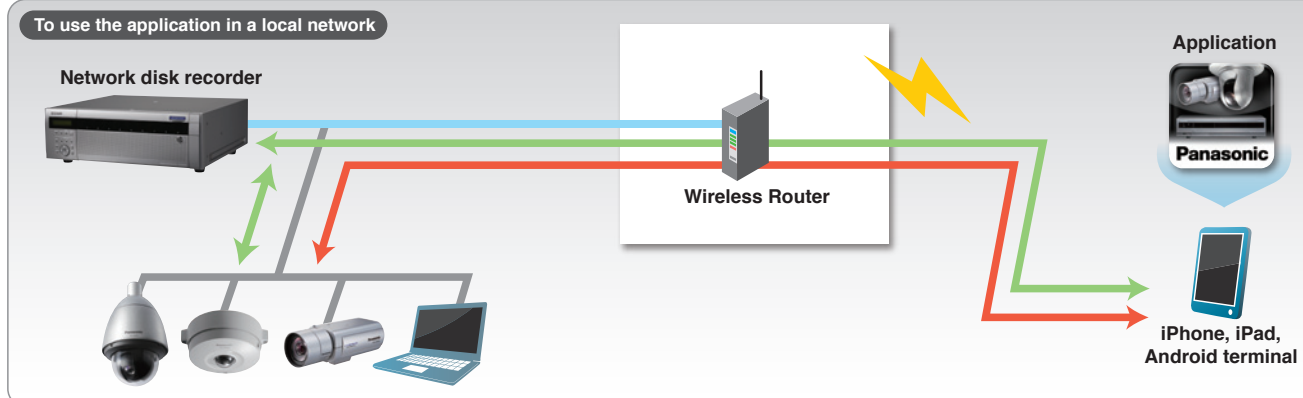
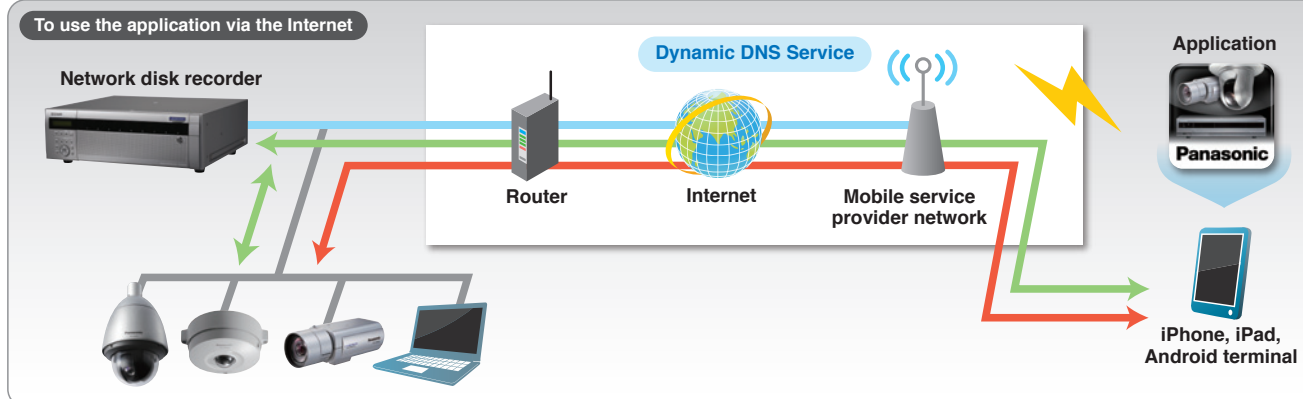
Introduction of the application

Panasonic Security Viewer Ver.2.1\* is an application that can view the images from i-PRO SmartHD Series Network Cameras, Network Disk Recorder (WJ-NV300\*/WJ-NV200/WJ-ND400/WJ-HD616/HD716). By connecting a terminal to a 3G/4G or wireless LAN (Wi-Fi), it is possible to view live images from cameras registered on the recorder and recorded images stored on recorders.

\*As of June 2014

Preface

To use the **Panasonic Security Viewer** via the Internet, it is recommended to register in the Dynamic DNS (DDNS) service.

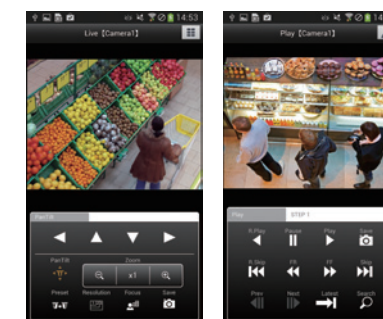


A PC is required to register a Dynamic DNS Service and configure the settings of the router.

- Download the Panasonic Security Viewer application on the Google play™ store, Apple App Store.



Features of the application



Network disk recorder

- Live image: Live images from the network cameras connected to the recorder
- Playing back recorded images: To play back the images stored on the recorder
- Re-encoding playback images for smartphones or tablet PC screen size/ frame rate
- Time & date search: To search the images to play back based on the time & date

Network camera

- Network camera control\* (Resolution switchover, focus, panning/tilting, zoom, preset position switchover)
- \* Depends on the network camera functions.

Android™

Outline of the application

Application name	Panasonic Security Viewer version 2.1
OS	Android™ OS 4.0 is recommended.
How to get the application	Download from the Google play™ store.
Date to start the service	End of June
Operation check terminals	Panasonic TOUGH PAD FZ-A1, JT-B1, Galaxy S2, Galaxy S3, Galaxy S4

- Download the application from here.

**Android™** <http://security.panasonic.com/pss/security/psv/android/index.html>

iPhone / iPad

Outline of the application

Application name	Panasonic Security Viewer version 2.1
OS	iOS 5.1 or later
How to get the application	Download from the App Store.
Date to start the service	End of June
Operation check terminals	iPhone4s, iPhone5, iPhone5S, iPad2, iPod touch (5th)

- Download the application from here.

**iPhone / iPad** <http://security.panasonic.com/pss/security/psv/ios/index.html>



Network Video Recorders

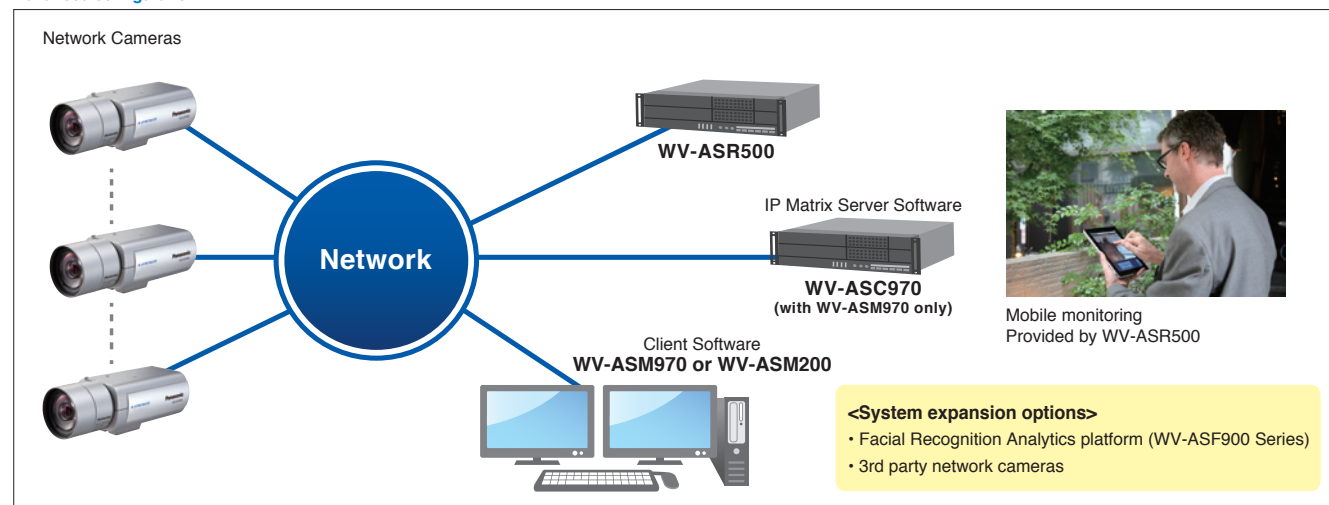
Server based recording and video management platform

**WV-ASR500 Series**



- Open platform, Panasonic's and 51 other vendor's network cameras support.
- Up to 128 network cameras can be connected and recorded.
- Up to 16 clients can monitor image and control WV-ASR500 simultaneously. (Depends on system structure, environment.)
- Various Recording Modes: Schedule, Event (Pre/Post)
- Graphical Timeline Search function (with WV-ASC970 System)
- H.264, MPEG-4 and JPEG multi format
- Mobile monitoring applications for smart phone (iOS, Android)
- Cooperative with the Face Matching System (WV-ASF900 Series)
- Supports archiving function to realize long-term recording

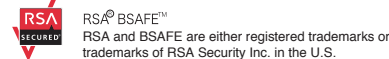
Advanced configuration



Recording Software (Channel License) per server: WV-ASRE501(1ch), WV-ASRE516(16ch), WV-ASRE532(32ch), WV-ASRE564(64ch)

Network Disk Recorder **WJ-ND400**

(120 V AC: NTSC, 220-240 V AC: PAL)



- H.264, MPEG-4 and JPEG multi format
- Up to 64 network cameras can be connected and recorded (Video and Audio)
- Various Recording Mode: Manual, Schedule including Event (Pre/Post), Emergency
- VMD search (works with i-PRO cameras or WJ-NT314)
- Up to 54 HDD slots with 9 HDD slots in the main unit and five WJ-HDE400 optional Extension Units each with 9 HDD slots
- RAID5/6, Embedded OS, Data encryption for reliability

Optional Accessory



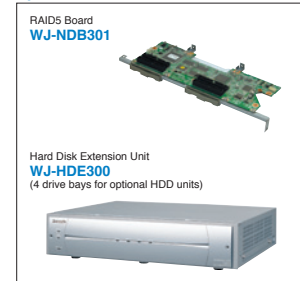
Network Disk Recorder **WJ-ND300A**

(120 V AC: NTSC, 220-240 V AC: PAL)



- H.264, MPEG-4 and JPEG multi format
- Up to 32 network cameras can be connected and recorded
- Up to 8 clients can monitor images and control WJ-ND300A simultaneously
- RAID5 capability with optional WJ-NDB301 RAID5 Board
- Various Recording Mode: Manual, Schedule, Event (Pre/Post), Emergency

Optional Accessories



Network Disk Recorder

**WJ-NV300**

(120 V AC: NTSC, 220 V -240 V AC: PAL)



- H.264 and JPEG multi format
- 16(NTSC) / 9(PAL) network cameras can be connected and recorded as default. Up to 32<sup>1</sup> network cameras can be connected and recorded.
- Quick setup by automatic camera detection and simple setup wizard without the use of PC
- Simple mouse operation by new GUI without the use of PC
- Supports the Full HD output (HDMI)
- HDD capacity is expandable up to 20 HDD slots (2 HDD slots in the main unit and 2 optional WJ-HDE400 Hard Disk Extension Units each with 9 HDD slots).

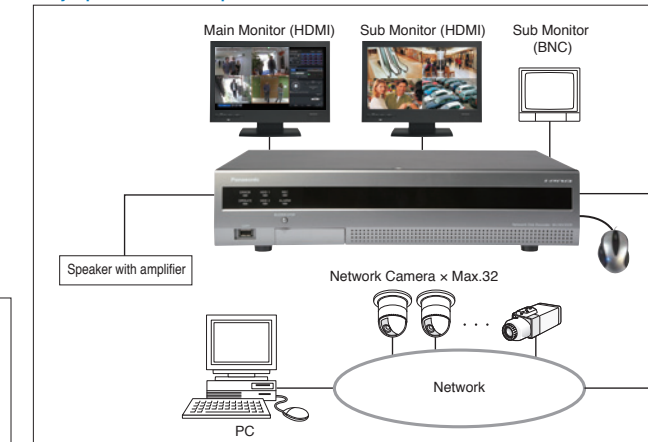
\*1 Two Additional Camera Kits WJ-NVE30 are necessary.(NTSC)  
Three Additional Camera Kits WJ-NVE30 are necessary.(PAL)

Additional Camera kit : WJ-NVE30

Optional Accessory

	Power Source	: 220 ~ 240 V AC, 50 Hz (PAL) 120 V AC, 60 Hz (NTSC)
	Power Consumption	: approx. 130 W
	Dimensions	: 430 mm (W) x 132 mm (H) x 400 mm (D) (16-15/16" (W) x 5-3/16" (H) x 15-12/16" (D)) (excluding rubber feet and projections)
	Weight	: 13.5 kg (29.8 lbs.) (When no HDD exist) 20 kg (44.15 lbs.) (When 9 HDDs are installed)

Easy Operation and Setup without PC



Network Disk Recorder

**WJ-NV200**

(120 V AC: NTSC, 220 V -240 V AC: PAL)

Network Disk Recorder with DVD drive (for NTSC only)

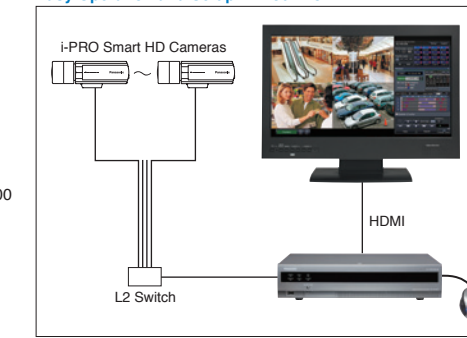
**WJ-NV200V**

(120V AC)



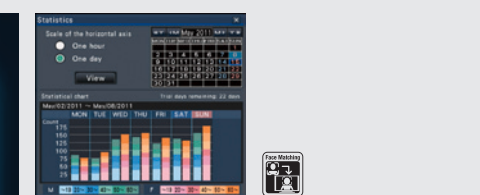
- H.264, MPEG-4 and JPEG multi format
- Up to 16 network cameras can be connected and recorded.
- Quick setup by automatic camera detection and simple setup wizard without the use of PC
- Simple mouse operation by new GUI without the use of PC
- Supports the Full HD output (HDMI)

Easy Operation and Setup without PC



Additional Business Intelligence Kit **WJ-NVF30 WJ-NVF20**

Additional Business Intelligence Kit NVF20 is a license kit intended to improve the usefulness of Network Disk Recorder WJ-NV300 / WJ-NV200.



- New statistical processing functions such as "People counting" and "Face matching / Age & Gender judgment"
- The number of detected human faces can be displayed on a statistical chart separated by age & gender for a single day or a specified time period.
- Age distribution groups are displayed by separate colors
- The statistical data can be saved as a CSV file on a SDHC/SD memory card or on a PC connected over a network.

\* To use this product, it is necessary to register the license (Registration Key) for Additional Business Intelligence Kit into the WJ-NV300/WJ-NV200 in use.

\* CSV file: A file that can be edited using a spreadsheet software such as Microsoft® Office Excel®

Network Camera Recorder with Viewer Software

**BB-HNP17**



- H.264, MPEG-4 and JPEG recording
- Supports the recording and playback of H.264 cameras
- Supports resolutions of 1280 x 960
- Remote Access Function
- Up to 64 cameras Register
- Event Detection Recording

- Flexible Layout
- Preset Sequence
- Timer recording with preset designation
- Pop-up display
- Time specified color night view



Software

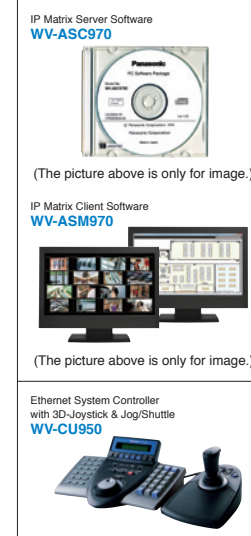
IP Matrix Server Software  
**WV-ASC970**

IP Matrix Client Software  
**WV-ASM970**

Extension Software  
**WV-ASE901\***  
(Monitor the status of Fire Alarm System)



System Components



Easy and smooth integration from analog to IP system

- WV-ASC970**
- Flexible system design: Analog, IP, and Hybrid analog/IP
  - Up to 64 recorders, 1,024 monitors, and 2,048 cameras (in case with encoder) can be registered
  - Camera/Sequence/Monitor selection, Camera control and Recorder control can be made with the optional system controller WV-CU950
  - Supported Recorders: WV-ASR500 Series, WJ-ND400 series, WJ-ND300 series, WJ-ND200 series, WJ-NV200 series, WJ-NV300 series, WJ-HD300 series, WJ-RT416 series, WJ-HD616/716 series
  - Redundant function supported (Redundant function can consist of 2 WV-ASC970 servers as Main server and Standby server)
  - Up to 64 ND400 recorders can be registered as Standby recorder for backup purpose of serious problems on main recorders

- WV-ASM970**
- Multi-Monitor option enables simultaneous use of Operation screen and Monitor screen (1 / 4 / 7 / 9 / 10 / 13 / 16 split) on a dedicated monitor. Two monitor operation is also available.
  - Up to 30 ips/camera can be displayed in 16 split-screen in MPEG-4 2 Mbps mode (depending on the camera, camera setup and PC performance).
  - Up to 30 ips/camera can be displayed in 16 split-screen in H.264 1.5 Mbps mode with VGA (depending on the camera, camera setup and PC performance).
  - Image resolution dynamically changes depending on the screen mode:VGA for Quad screen, QVGA for 16 split-screen, enabling optimum network usage (depending on the camera mode).
  - Decoder mode supported (WV-ASM970 can be used as PC-based decoder instead of GXD400)

- Extension Software WV-ASE901\***
- Monitor the status of Fire Alarm System.
  - Manually reset or acknowledge fire alarms and faults of Fire Alarm System.
  - Search history of fire alarm, faults and interlocking of Fire Alarm System.
- \* WV-ASE901 is only sold in certain areas. Please contact the sales company for details.

i-PRO Management Software Extension Software  
**WV-ASM200 WV-ASE201 / ASE202 / ASE203 / ASE204 / ASE205**



- Supports 16:9 video stream and 16:9 HD monitor. Displays 16:9 and 4:3 videos from IP cameras on the same screen.
- H.264 recording data in the SD/SDHC/SDXC memory card can be downloaded.
- Convert file format from n3r (proprietary format) to MP4.
- Up to 100 recorders, 64 encoders and 256 directly connected cameras can be registered.

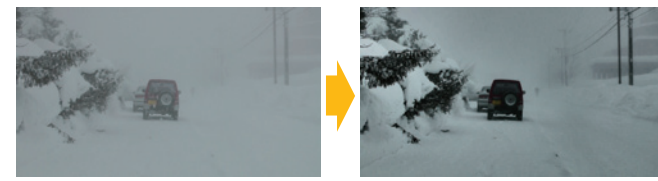
- Up to 6,400 cameras registered in the recorders and 256 cameras registered in the encoders are automatically registered in the WV-ASM200 (the number of the cameras depends on the recorder and encoder).
- Up to 16x 30 ips/camera images can be displayed in H.264 1.5 Mbps mode

- WV-ASE201**
- Add Live window, Map window in addition to the Operation window (3 monitors)
  - Control using the Ethernet System Controller WV-CU950
  - Expand the maximum numbers of screens to 20.
- \* To use the multi-monitor function, it is necessary to install an additional video card on the PC in use.

- WV-ASE204**
- Decoder registration: Up to 10 decoders

- WV-ASE202**
- Expand the maximum numbers of screens to 64.
  - Up to 4 live windows.
  - Multi-monitor function using up to 6 PC monitors.
  - To display the operation window, the map window and the 4 map windows simultaneously.

- WV-ASE205**
- Visibility Enhancement Function
- |                          |                                       |                                       |
|--------------------------|---------------------------------------|---------------------------------------|
| Spatial Tonal Correction | Snowfall and Rainfall Noise Reduction | Multi-frame Synthesis Noise Reduction |
|--------------------------|---------------------------------------|---------------------------------------|



- WV-ASE203**
- Expand the maximum numbers of registered recorders, encoders and cameras to 100, 64 and 256 respectively.
  - Up to 4 licenses for the WV-ASE203 can be added.

Facial Recognition Analytics Platform  
**WV-ASF900 Series**

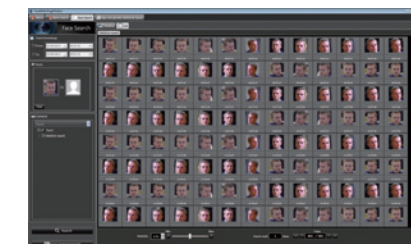


Facial Recognition Analytics Platform running in the video surveillance system

- Add-on face matching function: Add the face matching function by simply adding the necessary devices and the software
- Can be connected up to 20 cameras on a server.

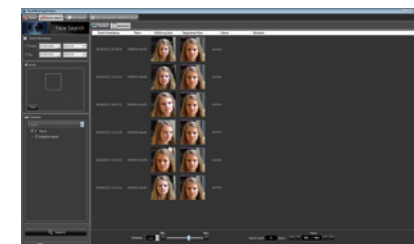
Face search

- Face images that camera detected are stored, and it can be searched later.
- By searching the face DB, you can display the result of each cameras in chronological order and find movement locus of persons.
- Specify camera or date in detected face images and display the result in the list in similarity order.



Face Matching

- When it is matched with registered people, alarm of face matching is output in real-time, and display an alarm history in the list.
- Specified screen image can be played back on control monitor with double-clicking on an alarm history.

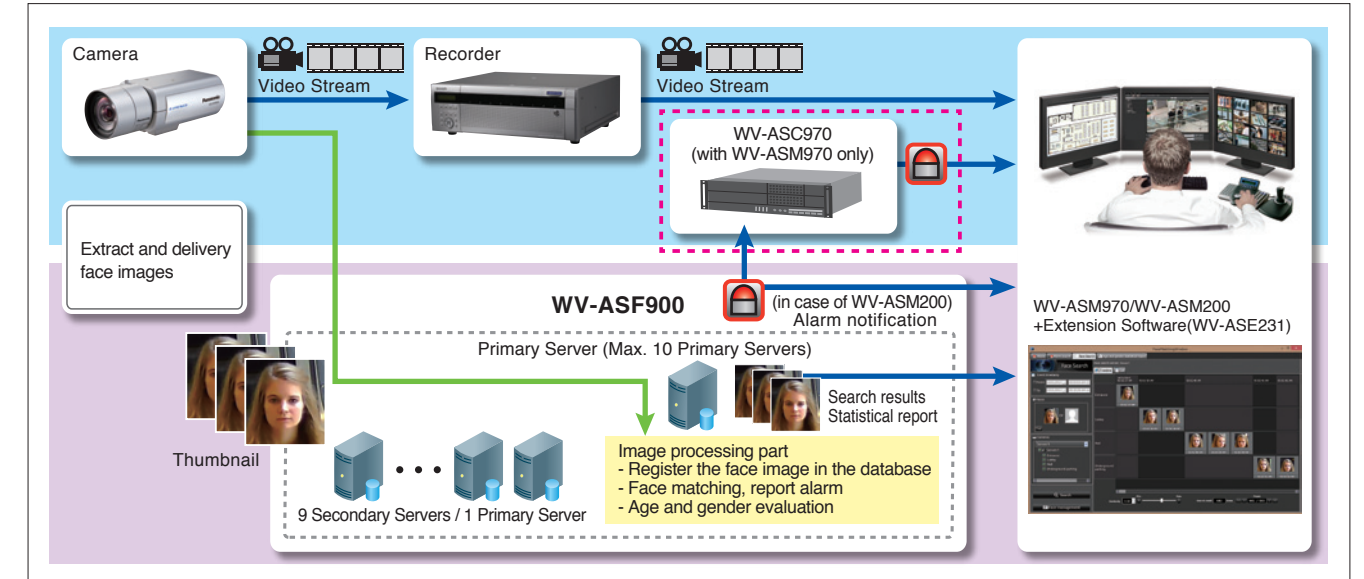


People counting, Age and Gender Statistics

- Count people of detected face and evaluate their age and gender
- Display the result on the screen with statistical graph
- The statistical data can be saved as a CSV file for analytical use.



Basic System Connection Example




Extension software  
**WV-ASE231 for WV-ASM970/WV-ASM200**

- To use the WV-ASF900, WV-ASM970 or WV-ASM200 with extension software WV-ASE231 is required.
- Extension Software for Facial Recognition Analytics Platform (WV-ASF900)
- Face Matching / Face Search / People counting results display on WV-ASM970 / WV-ASM200 screen
- i-VMD (Intelligent Video Motion Detection) tracking path display on WV-ASM970 / WV-ASM200 screen



Dome Cameras


Super Dynamic 6  
Weather Resistant Dome Camera  
**WV-CW590 Series**   
WV-CW590/WV-CW590A (220 V ~ 240 V AC: PAL)  
WV-CW594/WV-CW594A (24 V AC: NTSC, PAL)



- High resolution: 650 TV lines
- High sensitivity: 0.5 lx (Color), 0.04 lx (B/W) at F1.4 (Wide)
- **Super Dynamic 6** technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- Standard auto tracking
- IP66 rated water and dust resistant
- 36x optical zoom lens with 20x digital zoom
- Rain wash coating dome cover (WV-CW590A, WV-CW594A)

Optional Accessory

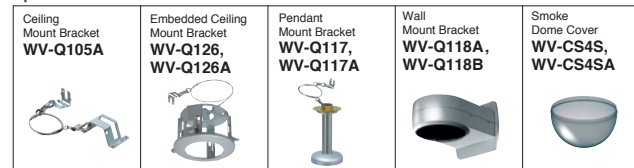


Super Dynamic 6  
Day/Night Dome Camera  
**WV-CS580 Series**   
WV-CS580 (220 V ~ 240 V AC: PAL)  
WV-CS584 (24 V AC: NTSC, PAL)




- High resolution: 650 TV lines
- High sensitivity: 0.5 lx (Color), 0.04 lx (B/W) at F1.4 (Wide)
- **Super Dynamic 6** technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- Standard auto tracking
- 36x optical zoom lens with 20x digital zoom

Optional Accessories



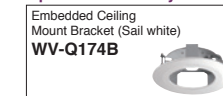
Fixed Dome Cameras

Super Dynamic 6  
Day/Night Fixed Dome Camera  
**WV-CF600 Series**   
WV-CF614 (24 V AC or 12 V DC: PAL)  
WV-CF624 (24 V AC or 12 V DC: NTSC, PAL)  
WV-CF634 (24 V AC or 12 V DC: NTSC, PAL)



- **Super Dynamic 6** technology delivers 128x(NTSC) / 160x(PAL) wider dynamic range compared to conventional cameras.
- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0.008 lx (B/W) at F1.4
- IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CF634, WV-CF624)
- High sensitivity with Day/Night (electrical) function: 0.08 lx (Color), 0.05 lx (B/W) at F1.4 (WV-CF614)
- ABS (Adaptive Black Stretch) enhances visibility of dark area without degrading image quality in bright area.
- ABF (Auto Back Focus) ensures easy installation. (WV-CF614/WV-CF634)

Optional Accessory



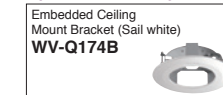
Day/Night Fixed Dome Camera  
**WV-CF344/CF354/CF374** 

WV-CF344 (24 V AC or 12 V DC: NTSC, PAL)  
WV-CF354 (24 V AC or 12 V DC: NTSC, PAL)  
WV-CF374 (24 V AC or 12 V DC: PAL)



- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0.008 lx (B/W) at F1.4 IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CF374)
- High sensitivity with Day/Night (electrical) function: 0.08 lx (Color), 0.05 lx (B/W) at F1.4 (WV-CF344/WV-CF354)

Optional Accessory



Fixed Dome Cameras

Super Dynamic 5  
Vandal Resistant Fixed Dome Camera  
**WV-CW500 Series**  
WV-CW500S (220 V ~ 240 V AC: PAL)  
WV-CW504S (24 V AC or 12 V DC: NTSC, PAL)  
WV-CW504F (24 V AC or 12 V DC: NTSC)



- High resolution: 650 TV lines typical (Color), 700 TV lines (B/W)
- High sensitivity: 0.1 lx (Color), 0.01 lx (B/W) at F1.4 (Wide) / 0.003 lx (Color), 0.0003 lx (B/W) at F1.4 (Wide) with Sens Up 32x
- **Super Dynamic 5** delivers Superior image by fusion of Super Dynamic, ABS (Adaptive Black Stretch) and i-VMD (intelligent-Video Motion Detection) intelligence technology

Optional Accessories



Vandal Resistant Fixed Dome Camera  
**WV-CW334/CW364**  
WV-CW334S (24 V AC or 12 V DC: NTSC, PAL)  
WV-CW364S (24 V AC or 12 V DC: NTSC, PAL)



- High sensitivity: 0.6 lx (Color) 0.4 lx (B/W) at F1.3(Wide) (WV-CW334)
- High sensitivity: 0.6 lx (Color) 0.05 lx (B/W) at F1.3(Wide) (WV-CW364)
- 2.8 mm ~ 10 mm 3.6x Varifocal Auto Iris lens
- Adaptive Black Stretch enhances visibility of dark area
- IP66 rated water and dust resistant

Optional Accessories



IR LED Day/Night Fixed Dome Camera  
**WV-CF300L Series** 

WV-CF304L (24 V AC or 12 V DC: PAL)  
WV-CF314L (24 V AC or 12 V DC: NTSC, PAL)



- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0 lx (B/W, LED on) at F1.3. IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CF314L)
- High sensitivity with Day/Night function: 0.15 lx (Color), 0 lx (B/W, LED on) at F2.0. IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CF304L)
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at 0 (zero) lx. **IR LED** irradiation distance 20 m (WV-CF314L), 10 m (WV-CF304L)

Day/Night Mini Fixed Dome Camera (for PAL only)  
**WV-CF102**  
(12 V DC: PAL)



- High resolution: 540 TV lines
- High sensitivity: 1.2 lx (Color), 0.9 lx (B/W) at F2.0
- 108 mm in diameter compact design
- 2.5 mm fixed focal lens
- Adaptive Black Stretch enhances the visibility of dark area

Optional Accessory





Fixed Cameras

Super Dynamic 6  
Day/Night Fixed Camera

**WV-CP600 Series** 

WV-CP600 (220 V AC: PAL), WV-CP604 (24 V AC or 12 V DC: PAL)  
WV-CP620 (120 V AC 60Hz: NTSC, 220 V - 240 V AC: PAL), WV-CP624 (24 V AC or 12 V DC: NTSC, PAL)



- **Super Dynamic 6** technology delivers 128x (NTSC) / 160x (PAL) wider dynamic range compared to conventional cameras.
- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0.008 lx (B/W) at F1.4 IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CP620/WV-CP624)
- High sensitivity with Day/Night (electrical) function: 0.08 lx (Color), 0.05 lx (B/W) at F1.4 (WV-CP600/WV-CP604)

Optional Accessories



Day/Night Camera

**WV-CP300 Series** 

WV-CP300 (120 V AC: NTSC, 220 ~ 240 V AC: PAL), WV-CP304 (24 V AC or 12V DC: NTSC, PAL)  
WV-CP310 (120 V AC: NTSC, 220 ~ 240 V AC: PAL), WV-CP314 (24 V AC or 12 V DC: NTSC, PAL)



- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0.008 lx (B/W) at F1.4 IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CP310/WV-CP314)
- High sensitivity with Day/Night (electrical) function: 0.08 lx (Color), 0.05 lx (B/W) at F1.4 (WV-CP300/WV-CP304)

Optional Accessory



High Sensitive Day/Night Camera

**WV-CL930 Series**

WV-CL930 (120 V AC: NTSC, 220 V - 240 V AC: PAL)  
WV-CL934 (24 V AC or 12 V DC: NTSC, PAL)  
WV-CLR930 (220 V - 240 V AC with RS-485 control IF: PAL)  
WV-CLR934 (24 V AC or 12 V DC with RS-485 control IF: PAL)



- 1/2 type interline transfer CCD
- Ultra high sensitivity: 0.09 lx (Color), 0.008 lx (B/W) at F1.4 / 0.003 lx (Color), 0.0003 lx (B/W) at F1.4 with Sens Up 32x
- ABF (Auto Back Focus) adjustment
- Built-in VMD (Video Motion Detector)

Super Dynamic 5  
Day/Night Camera

**WV-CP500 Series**

WV-CP500 (120 V AC: NTSC, 220 V - 240 V AC: PAL)  
WV-CP504 (24 V AC or 12 V DC: NTSC, PAL)



- High resolution: 650 TV lines typical (Color), 700 TV lines (B/W)
- High sensitivity: 0.1 lx (Color), 0.01 lx (B/W) at F1.4 / 0.003 lx (Color), 0.0003 lx (B/W) at F1.4 with Sens Up 32x
- **Super Dynamic 5** delivers Superior image by fusion of Super Dynamic, ABS (Adaptive Black Stretch) and i-VMD (intelligent-Video Motion Detection) intelligence technology

Weather Resistant IR LED Day/Night Fixed camera

**WV-CW300L Series** 

WV-CW304L (24 V AC or 12 V DC: PAL), WV-CW314L (24 V AC or 12 V DC: NTSC, PAL), WV-CW324L (24 V AC or 12 V DC: PAL)



- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.08 lx (Color), 0 lx, (B/W, LED on) at F1.3. IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CW314L/WV-CW324L)
- High sensitivity with Day/Night function: 0.15 lx (Color), 0 lx, (B/W, LED on) at F2.0. IR cut filter switches on/off to enhance the sensitivity in B/W mode. (WV-CW304L)
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at 0 (zero) lx. **IR LED** irradiation distance 50 m (WV-CW324L, WV-CW314L) **IR LED** irradiation distance 20 m (WV-CW304L)

Super Dynamic 6

Day/Night Surveillance Camera (for PAL only)

**WV-CZ492** 

(12 V DC: PAL)



- High resolution: 650 TV lines
- High sensitivity with Day/Night function: 0.5 lx at color mode (Sens Up: Off, AGC: High) 0.04 lx at B/W mode (Sens Up: Off, AGC: High)
- **Super Dynamic 6** technology delivers 160x wider dynamic range compared to conventional cameras.
- 36x Optical Zoom Lens

Digital Video Recorders

16ch Real-time H.264 Digital Disk Recorder

**WJ-HD716** (120 V AC: NTSC, 220 V - 240 V AC: PAL)


16ch H.264 Digital Disk Recorder

**WJ-HD616** (120 V AC: NTSC, 220 V - 240 V AC: PAL)



- Dual HDMI Full HD 1080i (1,920 x 1,080) display
- H.264 (High Profile) codec reduces bandwidth by up to 40 % compared with MPEG-4
- **SD5Link** (Super Dynamic 5 Link) with i-VMD (intelligent-Video Motion Detection) alarm
- Real-time recording (WJ-HD716) and 16ch 2x monitors real-time live
- Up to 31 HDD slots with 4 HDD slots in the main unit and three WJ-HDE400 optional Extension Units each with 9 HDD slots

Optional Accessories

HDD Canister <b>WJ-HDU40K</b>	Hard Disk Extension Unit <b>WJ-HDE400</b>
RAID Board <b>WJ-HDB601, WJ-HDB611A</b>	
Built-in DVD Drive <b>WJ-HDB611, WJ-HDB611A</b>	

System Controllers

Ethernet System Controller with 3D-Joystick & Jog/Shuttle

**WV-CU950**



- For smooth operation of Ethernet/PS-Data interfaced devices, WV-ASM200/WV-ASC970 and System650EX/System650/System150 (WJ-SX150A version 2.0 or higher)
- Integrated system control: camera, recorder and switcher
- User level management and user assignable buttons
- Universal design for Right or Left handed

RS-485 System Controller with 3D-Joystick & Jog/Shuttle

**WV-CU650**



- For smooth operation of PS-Data interfaced devices, and System650/System150 (WJ-SX150A version 2.0 or higher)
- Integrated system control: camera, recorder and switcher
- User level management and user assignable buttons
- Universal design for Right or Left handed

Matrix Switching System

512 Inputs Matrix Switching System

**System650EX**  
with WV-ASC970



- Up to 512 inputs and 64 outputs
- Simultaneous use of up to 64 WV-CU950 Ethernet System Controllers
- Up to 512 users
- Up to 32 recorders (WJ-HD716/WJ-HD616, WJ-HD300A Series, WJ-RT416 Series)
- Up to 64 Satellite domains

256 Inputs Matrix Switching System

**System650**



- Up to 256 inputs and 32 outputs
- Simultaneous use of up to 16 WV-CU650 RS-485 System Controllers
- Up to 60 users
- Up to 16 recorders (WJ-HD716/WJ-HD616, WJ-HD300A Series, WJ-RT416 Series)

System650EX/System650 System Components

Matrix Switcher <b>WJ-SX650</b>	Card Cage <b>WJ-SX650U</b>	Video Input Board <b>WJ-PB65C32</b> (32 inputs)	Video Output Board <b>WJ-PB65M16</b> (16 outputs)	Network Board <b>WJ-PB65E01</b> (for System650EX only)	D-sub/BNC Video Cable <b>WJ-CA68, WJ-CA68A</b> (0.5 m)
Expansion Cable Kit <b>WJ-CA65L20K, WJ-CA65L20KA</b> (2m) <b>WJ-CA65L07K, WJ-CA65L07KA</b> (0.7m)	RS-485 System Controller with 3D-Joystick & Jog/Shuttle <b>WV-CU650</b> (for System650 only)	Ethernet System Controller with 3D-Joystick & Jog/Shuttle <b>WV-CU950</b>	IP Matrix Server Software <b>WV-ASC970</b> (for System650EX only)	IP Matrix Client Software <b>WV-ASM970</b>	



Lens Selection Chart

Lenses





















1/3 type Variable Focal Lenses	2x Variable <b>WV-LZA61/2S</b> 3.8 mm ~ 8 mm F1.4 (wide) F1.8 (tele)		8x Variable <b>WV-LZ62/8S</b> 5 mm ~ 40 mm F1.6 (wide) F1.9 (tele)	
	Focal Length		3.8 mm ~ 8 mm	
Iris Type	Automatic	Automatic	Automatic	Automatic
Optical Filter Size	M30.5 mm, P = 0.5 mm	None	None	None
Mount	Special C-Mount, (CS-Mount, 1-32UN)	Special C-Mount, (CS-Mount, 1-32UN)	Special C-Mount, (CS-Mount, 1-32UN)	Special C-Mount, (CS-Mount, 1-32UN)
Dimensions (W x H x D)	60.5 mm x 53 mm x 45.3 mm	61 mm x 52 mm x 65 mm	61 mm x 52 mm x 65 mm	61 mm x 52 mm x 65 mm

Cameras / Lenses Combination Chart

Type of Lens	Model No.	Focal Length	1/3 type CCD Cameras		1/2 type CCD Camera
			WV-SPN631 / WV-SPN611 / WV-SP509 / WV-SP508 / WV-SP306 / WV-SP305 / WV-SP302	WV-CP300 / WV-CP500 / WV-CP600 Series	WV-CL930
1/3 type ALC	WV-LZA61/2S	3.8 mm ~ 8 mm	NO	YES	NO
Variable Focal	WV-LZ62/8S	5 mm ~ 40 mm	NO	YES	NO

Lens Selection Chart

The examples displayed below are monitor images captured with 1/3 type cameras, illustrating the relationship between lens focal length and the capture image. Use these images to select the type of lens best suited to your application.

Lens and Focal Length		Distance between Camera and Subject				
		2 m	4 m	6 m	8 m	10 m
1/3 type Lens	2x Variable Focal WV-LZA61/2S (3.8 mm ~ 8 mm)	 Ratio 84% 2.5(W) m x 1.9(H) m	 Ratio 42% 5.1(W) m x 3.8(H) m	 Ratio 28% 7.6(W) m x 5.7(H) m	 Ratio 21% 10.1(W) m x 7.6(H) m	 Ratio 17% 12.6(W) m x 9.5(H) m
	8 mm (Standard)	 Ratio 178% 1.2(W) m x 0.9(H) m	 Ratio 89% 2.4(W) m x 1.8(H) m	 Ratio 59% 3.6(W) m x 2.7(H) m	 Ratio 44% 4.8(W) m x 3.6(H) m	 Ratio 36% 6.0(W) m x 4.5(H) m
	5 mm (Wide)	 Ratio 111% 1.9(W) m x 1.4(H) m	 Ratio 56% 3.8(W) m x 2.9(H) m	 Ratio 37% 5.8(W) m x 4.3(H) m	 Ratio 28% 7.7(W) m x 5.8(H) m	 Ratio 22% 9.6(W) m x 7.2(H) m
	8x Variable Focal WV-LZ62/8S (5 mm ~ 40 mm)	 Ratio 889% 0.24(W) m x 0.18(H) m	 Ratio 444% 0.48(W) m x 0.36(H) m	 Ratio 296% 0.72(W) m x 0.54(H) m	 Ratio 222% 0.96(W) m x 0.72(H) m	 Ratio 178% 1.2(W) m x 0.9(H) m

\*Because of monitor over scan, actual images seen may differ slightly from those shown here.

\*\*"Capture image" is the area included in the image by the camera. "Ratio" determines the proportion of this area occupied by the subject in the image that appears on the monitor (Height). If the subject fills the whole screen with the ratio set at 100%, reducing the ratio to 50% will make the subject only half as large.

\*When the distance from the camera to the subject is 10 m or more, set both distance to subject and lens focal length to 10x.

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WJ-NV300	Network Disk Recorder	19	WV-SFN310	Super Dynamic HD Dome Network Camera	10
WJ-NVE30	Additional Camera Kit	19	WV-SFN311	Super Dynamic HD Dome Network Camera	10
WJ-NVF20	Additional Business Intelligence Kit	19	WV-SFN311L	Super Dynamic HD Dome Network Camera	10
WJ-NVF30	Additional Business Intelligence Kit	19	WV-SFN611L	Super Dynamic HD Dome Network Camera	9
WJ-PB65C32	Video Input Board (System650)	25	WV-SFN631L	Super Dynamic Full HD Dome Network Camera	9
WJ-PB65E01	Network Board (System650EX only)	25	WV-SFR310	Super Dynamic HD Vandal Resistant Dome Network Camera	8
WJ-PB65M16	Video Output Board (System650)	25	WV-SFR311	Super Dynamic HD Vandal Resistant Dome Network Camera	8
WJ-SX650	Matrix Switcher	25	WV-SFR611L	Super Dynamic HD Vandal Resistant Dome Network Camera	7
WJ-SX650U	Card Cage	25	WV-SFR631L	Super Dynamic Full HD Vandal Resistant Dome Network Camera	7
<b>WV-A</b>			WV-SFV310	Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera	6
WV-ASC970	IP Matrix Server Software	20,25	WV-SFV311	Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera	6
WV-ASE201/202/203/204/205			WV-SFV611L	Super Dynamic HD Vandal Resistant & Waterproof Dome Network Camera	5
	i-PRO Management Extension Software	20	WV-SFV631L	Super Dynamic Full HD Vandal Resistant & Waterproof Dome Network Camera	5
WV-ASE231	Face matching server Extension Software	21	WV-SFV631LT	Super Dynamic Full HD Vandal Resistant & Waterproof Dome Network Camera	5
WV-ASE901	WV-ASM970 Extension Software	20	WV-SMR10	360-degree Network Microphone	14
WV-ASF900 Series	Facial Recognition Analytics Platform	21	WV-SMR10N3	360-degree Network Microphone WV-SMR10	14
WV-ASM200	i-PRO Management Software	20		With 360-degree Network Camera WV-SF438	14
WV-ASM970	IP Matrix Client Software	20,25	WV-SPN6FRL1	IR-LED	12
WV-ASR500 Series	Server based recording and video management platform	18	WV-SPN6R481	RS-485 I/F	12
<b>WV-C</b>			WV-SP102	Network Camera	13
WV-CF5SA	Smoke Dome Cover	9,10,11,23	WV-SP105	HD Network Camera	13
WV-CF102	Day/Night Mini Fixed Dome Camera	23	WV-SP302	Network Camera	13
WV-CF344/CF354/CF374	Day/Night Fixed Dome Camera	23	WV-SP305	HD Network Camera	13
WV-CF300L Series	IR LED Day/Night Fixed Dome Camera	23	WV-SP306	HD Network Camera	13
WV-CF600 Series	Super Dynamic 6 Day/Night Fixed Dome Camera	23	WV-SP508	Super Dynamic Full HD Network Camera	13
WV-CL930 Series	High Sensitive Day/Night Camera	24	WV-SP509	Super Dynamic Full HD Network Camera	13
WV-CP300 Series	Day/Night Camera	24	WV-SPN611	Super Dynamic HD Network Camera	12
WV-CP500 Series	Super Dynamic 5 Day/Night Camera	24	WV-SPN631	Super Dynamic Full HD Network Camera	12
WV-CP600 Series	Super Dynamic 6 Day/Night Fixed Camera	24	WV-ST162	Pan-tilt Network Camera	15
WV-CR1S	Smoke Dome Cover	7,8	WV-ST165	Pan-tilt Network Camera	15
WV-CS4S, WV-CS4SA	Smoke Dome Cover	4,22	WV-SW115	Super Dynamic HD Vandal Resistant Wall Mount Network Camera	6
WV-CS5C	Clear Dome Cover	4	WV-SW152/SW152M	Super Dynamic Vandal Resistant Dome Network Camera	7
WV-CS5S	Smoke Dome Cover	4	WV-SW155/SW155M	Super Dynamic HD Vandal Resistant Dome Network Camera	7
WV-CS580 Series	Super Dynamic 6 Day/Night Dome Camera	22	WV-SW158	Super Dynamic Full HD Vandal Resistant Dome Network Camera	7
WV-CU650	RS-485 System Controller with 3D-Joystick & Jog/Shuttle	25	WV-SW172	Outdoor Pan-tilt Network Camera	15
WV-CU950	Ethernet System Controller with 3D-Joystick & Jog/Shuttle	20,25	WV-SW174W	Outdoor Pan-tilt Wireless Network Camera	15
WV-CW4S, WV-CW4SA	Smoke Dome Cover	5,6,22	WV-SW175	Outdoor Pan-tilt Network Camera	15
WV-CW5H, WV-CW5HA	Heater Unit	22	WV-SW314	Super Dynamic Weather Resistant HD Network Camera	12
WV-CW6S, WV-CW6SA	Smoke Dome Cover	7,11,12	WV-SW316	Super Dynamic Weather Resistant HD Network Camera	12
WV-CW7S	Smoke Dome Cover	5,6	WV-SW316L	Super Dynamic Weather Resistant HD Network Camera	12
WV-CW300L Series	Weather Resistant IR LED Day/Night Fixed Camera	24	WV-SW352	Super Dynamic Vandal Resistant Dome Network Camera	6
WV-CW334/CW364	Vandal Resistant Fixed Dome Camera	22	WV-SW355	Super Dynamic HD Vandal Resistant Dome Network Camera	6
WV-CW500 Series	Super Dynamic 5 Vandal Resistant Fixed Dome Camera	22	WV-SW395/SW395A	Super Dynamic Weather Resistant HD Dome Network Camera	3
WV-CW590 Series	Super Dynamic 6 Weather Resistant Dome Camera	22	WV-SW396/SW396A	Super Dynamic Weather Resistant HD Dome Network Camera	3
WV-CZ492	Super Dynamic 6 Day/Night Surveillance Camera	24	WV-SW3H, WV-SW3HA	Heater Unit	6
<b>WV-L</b>			WV-SW458/458M	360-degree Super Dynamic Vandal Resistant Dome Network Camera	14
WV-LZ62/8S	1/3 type 8x Varifocal Lens	24,26	WV-SW558	Super Dynamic Full HD Vandal Resistant Dome Network Camera	5
WV-LZA61/2S	1/3 type 2x Varifocal Lens	24,26	WV-SW559	Super Dynamic Full HD Vandal Resistant Dome Network Camera	5
<b>WV-Q</b>			WV-SW598	Super Dynamic Weather Resistant Full HD PTZ Dome Network Camera	3
WV-Q105A	Ceiling Mount Bracket	4,7,8,9,10,11,14,22	<b>Other</b>		
WV-Q115, WV-Q115A	Mount Bracket for WV-CW504F	22	System650EX with WV-ASC970	512 Inputs Matrix Switching System	25
WV-Q117, WV-Q117A	Pendant Mount Bracket	22	System650	256 Inputs Matrix Switching System	25
WV-Q118A, WV-Q118B	Wall Mount Bracket	4,22	Panasonic Security Viewer ver. 2.1		17
WV-Q119	Wall Mount Bracket	4			
WV-Q122, WV-Q122A	Wall Mount Bracket	3,22			
WV-Q126, WV-Q126A	Embedded Ceiling Mount Bracket	4,22			
WV-Q154C	Wall Mount Brackets (Clear)	4			
WV-Q154S	Wall Mount Brackets (Smoke)	4			