Product Features & Benefits

The INTEC Video Sentinel System combines High-Performance Color Zoom and Thermal Imaging camera technology to meet the stringent demands of today's Law Enforcement, Emergency Services, and Homeland Security applications. Having the ability to survey and assess a potentially hazardous situation from a safe distance gives the operator the ability to make critical decisions when necessary, enhancing the safety of all personnel involved.

- **Modular Design** – System can be configured as single- or dual-camera assembly combining Color Zoom, Thermal Imaging, and ICCD technologies. Tailored to exact specifications and budget, *it's easily upgradeable and expandable!*

- **Weatherproof** – Environmental camera assembly allows for exterior mounting applications and operation in all weather conditions. Camera modules equipped with fan, heater, humidity sensor, and optional window wiper.

- **Easy Installation** – All function and power signals are made through a sealed MIL-SPEC connector on a high-performance cable harness between camera and processor. Mounting the camera is made easy with the simple 4-bolt mounting pattern.

- **360 Degree Continuous Pan** – Provides unlimited and long-range surveillance and detection capability. *360 Degree Continuous Tilt available as an option!*

- **Integrated System Control –** All system control functions for Color Zoom and Thermal Imaging Cameras and Remote Camera Mount (Pan/Tilt) are made from a compact controller. *A system can have up to three control locations!*

- **Variable Speed Control** – Camera positioning is highly responsive and precise with our patent pending direct drive slip-clutch mechanism and proportional joystick control.

- **Programmable Home and Stow** – User defined programmable HOME and STOW allows the user to define camera positioning when the system is turned on and turned off. This ensures the camera is ready when needed and won't get damaged while traveling. Direct integration to Will Burt Mast Ready circuit available.

- **True Day/Night Operation** – Automatic switching technology and high-performance DSP electronics ensure vivid color images in daylight, highly sensitive monochrome images in low-light, and thermal imaging in zero light conditions.

- **Inverted Mount –** Camera Assembly can be installed upright or inverted depending on the application.

INTEC Headquarters
Laguna Hills, California

INTEC pioneered the use of dual camera technologies for commercial applications introducing the 1st generation Video Sentinel in 1995. The present design described here is the culmination of 10 years of experience in both the technology and application. We pride ourselves on our many "industry first" innovations and our experience that has spanned almost 40 years since our founding in 1970. Our in-depth knowledge combined with the best customer service and support in the industry provides a superior value for our customers.

Applications

City of Folsom (CA) Police
Mobile Command

Mast Mounted Surveillance / Mobile Command
Perimeter Surveillance at Crime Scene Investigations. Make accurate and timely decisions from real-time information as it happens. Record capabilities allow the information to be used to train personnel based on real-life scenarios.

Fire
Keep Firefighters out of harms way and make efficient use of time and resources. Helping Firefighters determine the seat of a fire, where to properly and safely ventilate, and see lingering hot spots and embers minimizes unnecessary teardown. Detect lost and missing persons on Urban Search and Rescue (USAR) missions.

City of Minneapolis (MN)
Mid-Mount Aerial Platform

New Jersey State Police
Mobile Command

Police, Bomb Squad, HAZMAT/HDT
Hostage Negotiations, Major Incident Response, Remote Detection and Interrogation. Provide the forward eyes of the robot; perform tank volume assessments as well as disturbed surface assessment. Assess and interrogate from a safe distance keeping personnel from harms way until absolutely necessary.

Airport Rescue and Fire Fighting (ARFF)
Fully integrated vision systems to aid and assist operators to quickly respond to the scene of airfield emergencies. Use the Thermal Imagining technology for Drivers Enhanced Vision and to detect a Brake Fire. The integrated 10.4″ Display and Thermal Imaging camera meet all the requirements of FAA AC150.

City of Phoenix (AZ)
Sky Harbor International Airport

Industrial Fire
Perform Tank Volume Assessments. Thermal Imaging technology alerts Firefighters to unseen dangers during tank volume assessment to predict and take safety measures against tank fire boilover.
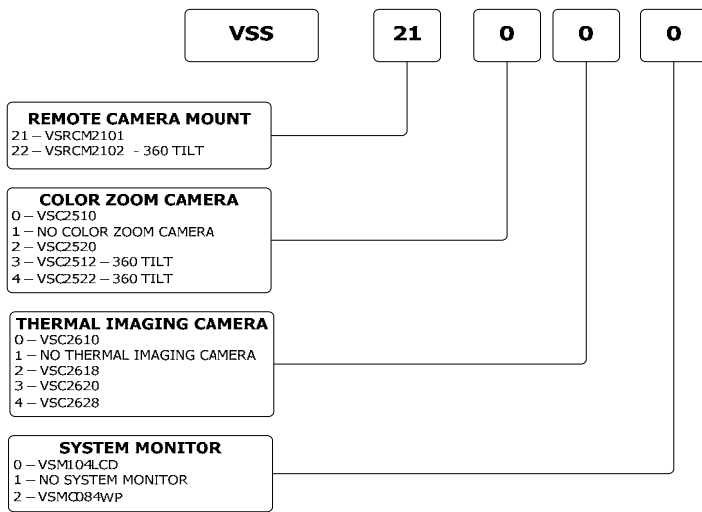

Captain Walt Lee
Minneapolis Fire Department
Engineering Officer

".....we use your Video Sentinel to train and support those in our mobile command center.... In August 2007, the camera was used in a live situation when the I-35W bridge collapsed during rush hour traffic. Our responders were able to setup the command center on a neighboring bridge and use the Video Sentinel to zoom in on areas of the bridge that had collapsed. We were able to quickly respond to this tragic incident because we had great coverage of the scene.

The Video Sentinel is also very reliable in the cold weather that we often experience. Thank you for your extraordinary service to our department."

System Configuration and Model Numbers

VSS	21	0	0	0

REMOTE CAMERA MOUNT
21 – VSRCM2101
22 – VSRCM2102 - 360 TILT

COLOR ZOOM CAMERA
0 – VSC2510
1 – NO COLOR ZOOM CAMERA
2 – VSC2520
3 – VSC2512 – 360 TILT
4 – VSC2522 – 360 TILT

THERMAL IMAGING CAMERA
0 – VSC2610
1 – NO THERMAL IMAGING CAMERA
2 – VSC2618
3 – VSC2620
4 – VSC2628

SYSTEM MONITOR
0 – VSM104LCD
1 – NO SYSTEM MONITOR
2 – VSMC084WP

The INTEC VSS21000 Series Video Sentinel System can be configured many different ways. From the basic system configuration consisting of a camera assembly and controller to the fully integrated system with multiple monitoring and control stations and multiple camera inputs, the Video Sentinel can be tailored to fit your requirement and budget.

Simplified Configuration of Mast Camera System
In this configuration, the system consists of the Camera Assembly, Mast Power Interface, and VSX410 Series Controller together with necessary cabling between the Camera and Controller.

Multiple Monitor & Control Stations
Up to 3 Monitoring & Control Stations can be configured into a system with our VSH300 Series Hub and VSX410/411 Controllers. In these configurations, each station is assigned a hierarchy of priority where station 1 would be the highest and three the lowest. Monitoring is accomplished via direct spot monitor and switched video outputs from the VSX410 series controller to either INTEC or user supplied displays of any size.

Expanded Camera Inputs for Safety/Surveillance Solution
Up to 4 INTEC CVC Series cameras can be integrated to the INTEC Video Sentinel System using our VSW400 Series Switcher and VSX403 Controller. These camera locations can be situated around the vehicle as an aide for the driver while responding to a scene and operating the vehicle (rear-vision, side-vision, forward looking) and also be used as security cameras while on scene. A dedicated monitor and controller can be provided for the driver in the cab area.

Wireless Transmission for Remote Monitoring and Control
Monitor and Control the Video Sentinel System from a safe distance with the Wireless Option using either Analog (FM) or Digital (COFDM) technology. All camera control functions are made from a weatherproof fully integrated 8.4″ color LCD with built-in system control function.

Quality First for Performance that Lasts...

At INTEC, *being the best* in our business does not come easily. It is earned by understanding our customers and by consistently providing products and services that exceed their expectations.

At INTEC, *quality considerations* *are equal to all others* in our decision making.

At INTEC, *we are committed* to exceed our customers' expectations with the quality of the products and services that we provide.

At INTEC, we realize *this* *involves every employee***.**

intec®
video systems, inc.
ISO 9001:2000 CERTIFIED

Frequently Asked Questions

Can the system be configured with just a color zoom camera?

Yes! The modular design of the Video Sentinel System allows it be configured as a single-camera or dual-camera system that can be expanded thereafter. The initial system is designed to support the full compliment of camera technologies offered and system expansion.

What all is included in the system when purchased?

For Mast Camera applications, the system kit includes all the primary system components as well as all standard length cable harness assemblies needed to complete the installation. Custom cable harnesses are available upon request.

Is the camera assembly weatherproof?

Yes! The camera assembly uses a single sealed Mil-Spec Amphenol connector. In addition, each camera module is equipped with thermostatically controlled heater, blower, and humidity sensors to ensure normal system operation.

How far can I see with the color zoom camera?

The Horizontal Field-of-View that is attainable at 1000 feet with the color zoom camera is approximately the length of a Suburban or about 20 feet.

How far can I detect something with the thermal imaging camera?

Under normal conditions, a human can be detected at 1900 feet or about 600 meters.

Can I record the video?

Yes! The video processor supports 2 additional outputs that can be programmed for recording purposes and the optional mobile DVR can be connected directly to either of these outputs.

Can I display the video from the camera system on a large display?

Yes! The system can be ordered configured without the 10.4″ System Monitor and the video outputs on the processor support any (larger format) display that accepts a composite NTSC video signal.

How do we get the system installed?

The system can be installed at the OEM level by who ever is building your vehicle or it can be installed by your local dealer that supports the vehicle aftermarket. INTEC also offers nationwide installation service.

What's the warranty on the system and how do I get support?

The standard warranty on the system is 2 years. Extended warranties are available if required. If support is needed, a Customer Service Specialist can be reached toll-free at both our California and Pennsylvania offices.

How can we see the capabilities of the system demonstrated?

INTEC demonstrates the system at a number of trade shows every year in addition to having a number of systems available for evaluation purposes. Please contact the following associate for assistance:

Quality First for
Performance that Lasts!

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When your needs demand the best...

When your needs demand a solution for 100% uptime or next day turnaround -

INTEC understands that responding quickly is key to performance.

When your needs demand a turn-key approach to system design, sales, support, and service –

INTEC understands that our experience is key to value.

When your needs demand high-performance "eye-in-the-sky" video surveillance –

INTEC understands that high reliability is key to satisfaction.

VideoSentinel

Why settle for anything less?

Camera Assembly	Color Zoom	Thermal Imaging	Video Processor	System Controller

Camera Assembly

Dual Camera

Models:
VSRCM2101
360 Continuous Pan
VSRCM2102
360 Continuous Pan & Tilt

Power Requirements:
10-32 VDC

Power Consumption:
Start-up   132 Watts
Full-Operation   46 Watts
Static   21 Watts

Connector: Amphenol
PT02E Series

Pan Control: 360°
Continuous Rotation

Tilt Control:
VSRCM2101
180° (+/- 90°)
VSRCM2102
360° Continuous Rotation

Pan & Tilt Rate:
0-30°/ sec

Fan: 24VDC Brushless,
Thermostat Control

Heater: 24VDC 15W

Humidity Sensor:
Anti-fogging 10-90%

Wiper: Optional

Temperatures (C):
-40° - +85° (Operation)
-65° - +150° (Storage)

Dimensions (H x W x D):
Single Camera
11.2″ x 12.3″ x 6.4″
Dual Camera
11.2″ x 17.7″ x 6.4″

Finish:
Cardinal White Powder Coat
standard. Other colors
available.

Weight:
Single Camera Color
20 lbs
Single Camera Thermal
22 lbs
Dual Camera
28 lbs

Color Zoom

Single Camera Color Zoom

Models:
VSC2510
HP Color 23X Zoom
VSC2520
SHP Color 35X Zoom EIS

Signal:
VSC2510
NTSC Comp. Video UTP
Differential Video 2 VPP
VSC2520
NTSC Composite, UTP,
Differential Video 2 VPP,
Y & C Component

Sensor:
VSC2510   ¼″ IT CCD
VSC2520   ¼″ PS CCD

Resolution:
VSC2510   470 TVL
VSC2520   540 TVL

Sensitivity (lx):
VSC2510   2 Color .01 B/W
VSC2520   1 Color .05 B/W

Luminance SN Ratio:
>50db

Lens (HFOV W & T):
VSC2510
3.6mm- 83mm f1.6, 23X
Optical, 2x Digital Zoom
(41.5° x 1.9°)
VSC2520
3.4mm- 119mm f1.4 35X
Optical, 12x Digital Zoom
(55.8° x 1.7°)

Focus: Auto/Manual

Iris:
VSC2510   Auto
VSC2520   Auto/Manual

**Electronic Image
Stabilization (H & V):**
5 Hz Mode: -12dB
16 Hz Mode: -12dB

Thermal Imaging

Dual Camera With Wiper Option

Models:
VSC2610
320x240 50mm
VSC2618
320x240 18mm
VSC2620
320x240 50mm Digital
VSC2628
320x240 18mm Digital

Signal:
NTSC Composite, UTP,
Differential Video 2 VPP

Sensor Type, Material:
Uncooled Ferroelectric, BST

Resolution: 320 x 240

Spectral Range:
7-14 µm LWIR

Sensitivity: 45mv/ °C

Time to Image: < 30 Sec.

Window Type:
Polished Germanium

Lens (FOV H x V):
VSC26x0
50mm f1.0 (17° x 13°)
VSC26x8
18mm f1.0 (46° x 35°)

Detection Range:
VSC26x0   Up to 1900 ft
VSC26x8   Up to 700 ft

Focus:
VSC26x0
Motorized, Manual
VSC26x8
Fixed

Video Processor

VSP2100

Models:
VSP2100
System Monitor
VSP2101
Non-System Monitor

Inputs/Outputs:
VS Series Camera, Controller,
Monitor, CV Series Camera,
External Video Input/Output,
Alternate Monitor, System
Recorder, Power

Power Requirements:
10-32 VDC

Dimensions (H x W x D):
1.5″ x 13.0″ x 5.6″

System Monitor

VSM104LCD

Models:
VSM104LCD
10.4″ System Monitor
VSMC084WP
8.4″ Weather-Proof
Monitor/Controller

Pixel Format:
640(H) x 480(V)

Pixel Pitch: .330 (H & V)

Pixel Configuration:
R, G, B Vertical Stripe

Display Type:
Active Matrix Color TFT 6-bit

Viewing Angle (H x V):
+/-70° x +40° /-70°

Enhancements:
Direct Bond Anti-Reflective
Glass, Passive Back Light,
Contrast

Luminance: 450 nits

Contrast Ratio:
VSM104LCD   300:1
VSMC084WP   500:1

Dimensions (H x W x D):
9.5″ x 13.9″ x 3.8″

System Controller

VSX451

Models:
VSX451
System Controller
VSX410
Video Out
VSX411
Multi Station

Dimensions (H x W x D):
3.0″ x 7.8″ x 4.5″

System Controls

Power: System On/Off

Select: Camera to Display

Wiper: On/Off

Pan/Tilt:
Up, Down, Left, Right &
Complimenting Continuations

Joystick:
Proportional, 8-position, RTC

Program:
Range & Speed in Auto Scan,
Home, and Stow

Home:
Calls Camera to Home

Auto:
Auto Scan Mode, On/Off,
Auto-Off with Joystick

Color Zoom Camera

Zoom: Tele, Wide

Focus:
Near, Far, Auto On/Off

Iris: Open, Close

IR Cut Filter: On/Auto/Off

F1: Special Function

Thermal Imaging Camera

Focus: Near, Far

Gain:
Auto/Manual Up/Down

Level:
Auto/Manual Up/Down

Polarity:
White Hot/Black Hot

Options

Multiple Control Locations
Up to 3 Monitoring & Control locations with the use of our optional VSH300 Series Hub and VSX400 Series Controllers.

Multiple Camera Inputs/Outputs
Expand the system with up to 4 additional cameras with our optional VSW400 Switcher and our popular CVC Series cameras.

360 Degree Continuous Tilt
Adding continuous and unlimited rotation in the tilt axis together with image auto-flip, the 360 Degree Tilt option provides the latest exclusive innovation for mobile surveillance applications.

Window Wiper
Keep the viewing windows free from water and dust with the optional window wiper. Controlled from the system controller, the wiper option can be ordered as original equipment or retro fit to existing systems.

Auto-Leveling Camera Mount
Regardless of the angle the camera assembly is mounted on, the image on the operators monitor will always be true. **Ideal for aerial applications** where the camera assembly is installed to the ladder assembly.

Shock Camera Mount
Suitable for severe duty applications, the Shock Camera Mount adds active gas dampening to keep the camera assembly level and absorb the shock that would otherwise be transferred to the camera, minimizing extra engineering time and cost to accommodate your severe duty applications.

Wireless Remote Monitoring and Control
This Wireless Microwave link provides a secure, point-to-point link between the camera and remote operator providing complete Monitoring and Control from as many as 2 remote locations. Available in both Analog (LOS) and Digital COFDM (NLOS) configurations.

Mobile Digital Video Recorder (MDVR)
Record up to four camera inputs simultaneously in high-performance MPEG4 format to provide a permanent record for training and evidentiary purposes. Remote and wireless storage and database available.

Partial List of Video Sentinel Customers:

City of Amarillo (TX) Police
City of Arlington (TX) Fire
City of Phoenix Fire
Town of Gilbert (AZ) Police
Los Alamos National Lab Fire
New Jersey State Police
County of Spokane (WA) OEMS
King County (WA) Sheriff
City of Portland (OR) Fire
Tualatin Valley (OR) Fire
City of San Jose (CA) Police
City of Beaumont (TX) Police
City of Pomona (CA) Police
New Jersey State Police
Hayes County Texas OEMS
Beaver County (PA) OEMS
Allegheny County (PA) OEMS
Valley Stream (NY) Fire Department
City of Yonkers (NY) Fire
City of Blooming (MN) Police
City of McKinney (TX) Fire
City of San Antonio (TX) Fire
DuPage County (IL) OHSEM
Morris Township (NJ) Police
Sate of Louisiana Fire Marshall
San Bernardino County Sheriff
Santa Barbara County Sheriff
Orange County (FL) Fire
Harris County (TX) Sheriff
State of Tennessee Arson
Washington County (MD) OEMS
City of Baltimore (MD) Fire
City of Worthington (OH) Police
Uinta County (SD) OEMS
City of Folsom (CA) Police
City of Henderson (NV) Police/Fire
City of Minneapolis (MN) Fire
Federal Fire Department
CITGO Refinery and Petroleum Co.
City of Grapevine (TX) OEMS