United Vision Solutions

10 Center St. , Chicopee, MA 01013, USA

Email: sales@unitedvisionsolutions.com

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Sales Dept. 413-592-8477

Long Range Camera System

Our camera system designed for long range surveillance 24/7 utilized the most advance optical sensors and lenses

Day time, Night, Dark, Fog, Rain, and Smoke

Reduction of Airborne Interference, e. g. Fog, Rain, Sand, Smoke, Snow

Reduction of Heat Haze

Image Stabilizer

Thermal Eye with 640x480 resolution utilized Digital Detail Enhancement

Day Camera with EMCCD that provides full-color, full-frame video images even at night.

Extreme Lens with Ultra-Telephoto recognizes 16' objects a mile away.

Amazing long focal length of ***from 50X to 100X*** that captures distant objects.

Heavy Duty Stainless Steel Enclosure, Forget rust and salt air corrosion.
Anti- Rust. Anti- Salt Air. Anti- Corrosion.

EV3000 using modern technology to reduce the temperature by 20C

Stabilized Pan/Tilt with Video Stabilization

United Vision Solutions
A world without darkness

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PAN/TILT THERMAL & COLOR CAMERAS

- All Weather Stainless Steel Rugged Housing
  Anti-corrosion, Anti Rust, resist high humidity and salt water.
  Spectial Reflective paint to reduce heat by 15 degree.
- 128 preset positions for perimeter scanning, Tour function
- Pelco-D protocols , can be integrated with any other CCTV system
- Environmentally sealed and dry nitrogen filled
- Image overlay combines thermal and video image

- The EV3000 EMCCD colour night vision camera provides high resolution full colour images from full Sunlight down to quarter Moonlight, and thereafter monochrome images down to Starlight.

Thermal Imager

- Cooled 3-5 micron InSb detector
- 640x480 Insb
  750mm Lens

Pan/Tilt resolution

High performance, brushless, maintenance-free step motors provide very precise, extremely effective motion control with preset and 0-360 degree endless rotation

CCTV software with TCP/IP

– Full control of Thermal / Day-Night / Pan/Tilt
Using standard Protocol Pelco-D

Day/Night Camera

– 1/2" High-Resolution EMCCD
– 0.0009 lx (color) / 0.000008 lx (B&W)
– Lens 10-500mm 50X optical zoom
12.5-750mm 60X optical zoom
10-1000mm 100x optical zoom
– Reproduces full colour, full motion images in starlight conditions

Sensor Platform

– Heavy Duty, Stabilized Pan/Tilt
– Stainless Steel Enclosure,

This product can be used in any marine applications, harsh environment.
Anti-rust full sealed housing/ and Pan-Tilt.
Great for shore, sea ports or ship due to its material Stainless Steel 316 against corrosion.

Options

* Digital real time video stabilization
* Washer 5 or 10 ltr

Stainless Steel
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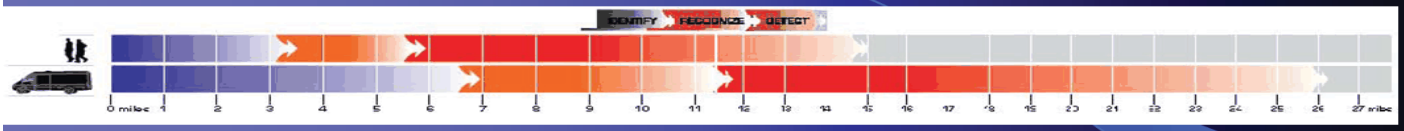
FEATURES		EV3000-D-IR-750
Thermal Imaging	Detector type Pixel Count (Resolution)	Indium Antimonide (InSb); 640x480 detector , 15µm micron pitch, high-resolution has 4-times the picture clarity of cameras that use medium format 320x240
	Spectral Response	3 - 5 µm
	Image processing	Digital Detail Enhancement (DDE) On/Standby/Off, Auto & manual Level, manual Gain, Polarity, reticle on/off/select, Non-Uniformity Correction, Change FOV, Focus
	FOV (H X V)	3.6° x 2.6° (WFOV) to 0.7° x 0.5° (NFOV) Dual Field of View
	Digital Zoom	2X, 4X
	Focal Length (mm)	**150x750mm**
Video	Sensor	1/2 inch EM-CCD with electron multiplication High sensitivity color / monochrome camera
	Field of View Zoom	23° 42′ 17° 74° (WIDE) 0° 74° 0° 55 (TELE) Optical: 50X 10-500/10-1000mm 28°43′ 21°44′ (WIDE) 14°35′ 10°58′ (WIDE 2X) 0°29′ 0°22′ (TELE) 0°15′ 0°11′ (TELE 2X) Optical:60X 12.5-750mm-25-1500mm 43° 6′ 35° 5′ (WIDE) 22° 6′ 18° 2′ (WIDE 2X) 0°.46′ 0° 37′ (TELE) 0° 23′ 0° 18′ (TELE 2X) Optical: 100X 10-1000mm/20-2000mm
	Illumination	Mnimum illumination 0.000008 lx BW
Pan & Tilt	Azimuth Control	360˚ continuous
	Elevation Control	± 90 ˚
	Pan & Tilt Slew Rate	0 seconds to 60 seconds
	Pointing Accuracy	Pan ± o.1˚ / Tilt ± 0.1˚
Power	Power Source	10 - 28 VDC through supplied 110 /220 VAC power supply
Environmental Characteristics	Operating Temperature	-40° C to 55° C
	Environmental Sealing	Fully ruggedized

EV3000-D-IR750 Range Chart



	Person	Truck
Identification	3 miles	6 miles
Recognition	5 miles	11 miles
Detection	12 miles	24 miles

	Identifications	Recognition	Detection	
Man Size Object	3	6	12	(miles)
Vehicle Size Object	5	11	24	(miles)

*Specifications subject to change without notice. Export of the commodities described herein is strictly prohibited without a valid export license issued by the U.S. Department of State Office of Defense Trade Controls prescribed in the International Traffic in Arms Regulation (ITAR), Title 22, Code of Federal Regulation, Parts 120-130.

Vision Surveillance Camera Sysytem that Never Sleeps

EV3000 EMCCD

With its built-in night vision Electron Multiplying CCD the Eagle Vision has a light sensitivity that re than 100 times better than average. The fact that this camera has been selected as the solution for the unmanned surveillance needs of military front lines proves its capability.

100 Times More Sensitive Than A Normal Camera

A new 1/2 inch EM-CCD with electron multiplication is used to achieve exceptional sensitivity.

Color in full motion mode: 0.009 lx
Color accumulation mode: 0.00015 lx

Monochrome in full motion mode: 0.0005 lx
Monochrome accumulation mode: 0.000008 lx

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Main Specifications

Imaging device	1/2-inch interline EM-CCD
Total pixels	680(H) x 500(V)
Effective pixels	658(H) x 489(V)
Imaging area	6.58(H) x 4.89(V) mm
Pixel pitch	10.0(H) x 10.0(V) µm (Square pixel)
Scanning system	2 : 1 Interlace
Scanning frequency	Horizontal 15.734 kHz Vertical 59.94 Hz
Synchronization	Internal
Video output	
VBS output	Video 0.7 Vp-p Plus terminal nature
Sync	0.3 Vp-p Negative polarity
Burst	0.3 Vp-p, More than 8 cycles
Impedance	75 Ω Un-balancing.
Signal-processing system	igital processing (Input 10 bit)
Signal to noise ratio (S/N)	50 dB or more (luminosity signal, Gamma OFF, minimum gain, without detail boost)
Resolution	Horizontal: 480 lines Vertical: 350 lines (In the central part)
Minimum photographic subject illumination	0.009 lx (Color in full motion, maximum sensitivity setup, F1.4, 50 IRE)
	0.0005 lx (Monochrome in full motion, maximum sensitivity setup, F1.4, 50 IRE)
	0.00015 lx (Color 64 time accumulation, maximum sensitivity setup. F1.4, 50 IRE)
	0.000008 lx (Monochrome 64 time accumulation, maximum sensitivity setup, F1.4, 50 IRE)
Sensitivity (Gain) setup	Auto or a manual (factory set-AUTO)
Electronic shutter	Shutter: 7 steps /AES (factory set-OFF) OFF(1/60), 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000 sec
Accumulation magnification setup	Auto or a fixed change is possible. (factory set-OFF) 2, 4, 6, 8, 10, 16, 32, 64 times
Backlight compensation	An ON/OFF change is possible (factory set-OFF) Light-measurement area: Nine area to selection is possible.
The output for auto iris lenses	(Square shape 4 pin, JEITA conformity) A galvanometer system/video signal
White balance control	From the following three modes to selection (factory set-ATW)
	ATW: The mode which follows automatically
	automatic setup
	MANUAL: They are red and the mode which carries out blue gain adjustment and unites a white with manual operation
Camera title character display	A display is possible to 22 characters in an alphanumeric character and a sign
	possible in the position of a character.
B/W Mode	OFF: The mode of fixation on a color image
	On: In high sensitivity monochrome image mode
	AUTO: With luminous intensity OFF of high sensitivity mono-chrome image, the mode where ON changes automatically In addition, it changes, as for luminous intensity from 3 stages of the HI, the MID and the LOW selective possibility
Picture quality adjustment menu	Following to the menu indication of the picture, various picture quality adjustments and mode selection are possible
DNR	Change of AUTO / MANU (8 steps) (factory set-AUTO)

Video encoder	
Video compression	MPEG-4 Part 2 (ISO/IEC 14496-2) Motion JPEG
Resolutions	160x120 to 704x576
Frame rate MPEG-4	Up to 30/25 (NTSC/PAL) fps at 2CIF, 21/17 fps at 4CIF
Frame rate Motion JPEG	Up to 30/25 (NTSC/PAL) fps at 4CIF
Video streaming	Simultaneous MPEG-4 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR MPEG-4
Image settings	Compression, color, rotation, aspect ratio correction, mirroring Text and image overlay Privacy mask De-interlace filter
Pan/Tilt/Zoom	Wide range of analog PTZ cameras supported (drivers available for download at www.axis.com) 20 presets/camera Guard tour PTZ control queue Supports Windows compatible joysticks
Network	
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control, digest authentication, user access log
Supported protocols	IPv4/v6, HTTP, HTTPS, QoS layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS

Pan / Tilt		
Pan	angle	0-360 (Endless)
	speed	0.1° ~ 60°/sec
Tilt	angle	-60˚ ~ +30˚
	speed	0.1°~ 30°/sec
Electric Power		240W
Input Power		AC100~240V Free Voltage
Temperature		-25 ~ +60 ° C

IR Day-Night Motorized Zoom Lenses

Lenses:	Optical: 50X 10-500/10-1000mm			Optical: 60X 12.5-750mm-25-1500mm			Optical: 100X 10-1000mm/20-2000mm		
Field of View	23° 42′	17° 74°	(WIDE)	28°43′	21°44′	(WIDE)	43° 6′	35° 5′	(WIDE)
	0° 74°	0° 55	(TELE)	14°35′	10°58′	(WIDE 2X)	22° 6′	18° 2′	(WIDE 2X)
				0°29′	0°22′	(TELE)	0°.46′	0° 37′	(TELE)
				0°15′	0°11′	(TELE 2X)	0° 23′	0° 18′	(TELE 2X)

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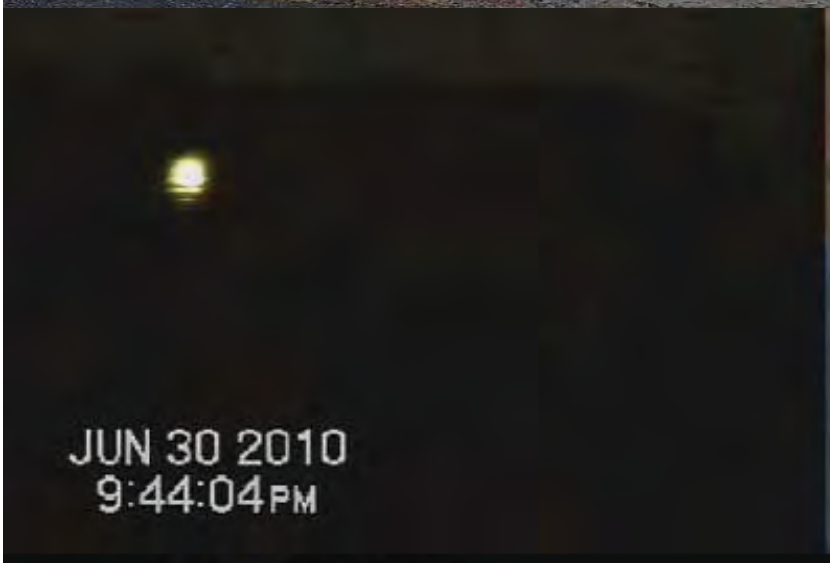
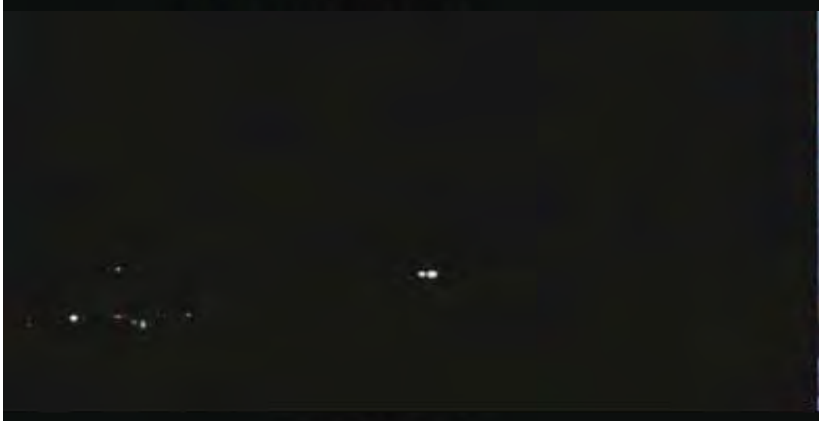


CCD VISIBLE

EMCCD



VISIBLE

EMCCD

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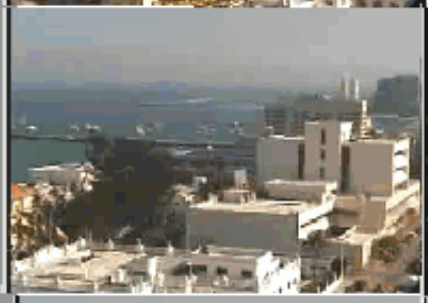
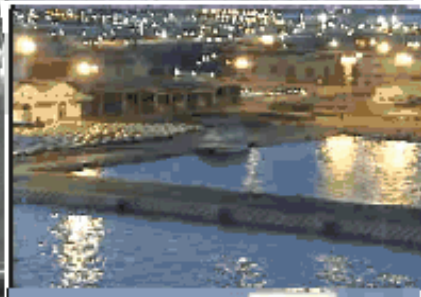
Eagle Vision EV3000
Camera System
Color EMCCD





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United Vision Company Profile

Corporate Capabilities

United Vision Solutions, LLC is a Massachusetts company, with its office at 10 Center St., Chicopee, Massachusetts, USA.

United Vision Solutions, LLC provides across the board expertise in all aspects of CCTV Long Range Camera System, from the design phase to the delivery of complete turnkey solutions.

United Vision Solutions, LLC designs CCTV Camera systems with an emphasis on Long Range capabilities using EMCCD technology and IR thermal Technology. Our team works closely with FLIR , Hitachi, Axis and Raymax systems. We successfully integrate EV3000-D_IR Extreme Long Range Camera System in a Stainless Steel enclosure with precise Pan/Tilt features that function in diverse platforms such as Ports, Oil platforms, Airports and others locations throughout the world.

United Vision Solutions works closely with their partners to design advanced multi-sensor long range system using standard protocols to enable fast delivery, easy maintenance and end user friendly.

United Vision Solutions was the 1st company worldwide to integrate a 1000mm lens with EMCCD cameras in stainless Steel platform using fiber-optics for video and controls in a Mexican Navy port monitoring project.

United Vision Solutions was also the 1st company worldwide to integrate a 1500mm lens with EMCCD cameras, and interfaced the camera to a radar System using standard protocol (Finland Navy project).

CLIENT HIGHLIGHTS

US Coast Guard
US Air-force
US Center Command
US Army Corps of Engineers
Finland Navy
Mexico Navy
Pemex Oil Comapny

United Vision Company Profile

Mexican Navy Long Range Surveillance System

In December 2007, we were asked by Mexican military through local company to deploy a surveillance system that could have the potential to perform surveillance in Mexican ports for long range targets in low light conditions, the required system shall be able to obtain a clear image of targets located within a radius of 10 to 15 km, in addition to long range it was required system can handle harsh environment as it will be installed near ocean, where corrosion is an issue.

The accepted system was based on the technology supplied by United Vision Solutions to install both the camera & the lens within a high grade stainless steel vandalism resistant Pan-Tilt & Zoom (PTZ) unit for marine use manufactured by United Vision, which allows end-user not only to control the Pan/Tilt/Zoom/Focus of the camera but also all the functionality of both the camera & the lens either in operation control room or inside main control room.

The first Long Range Surveillance System was successfully installed in May 2008. The last 3 systems were installed between November 2008 & January 2009. These systems are installed and fully operational today by Mexican Navy personal in 4 separate geographic locations in Mexico, two systems are in different ports in the Pacific coast and other two monitoring ports in the Atlantic coast.

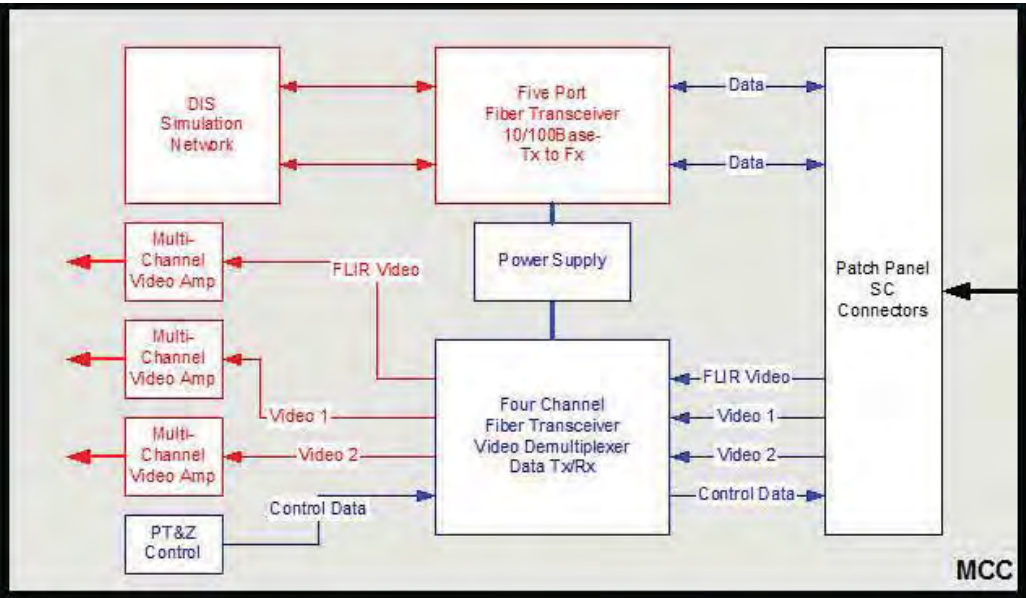
Each system is controlled locally using computer via TCP/IP, in addition to control camera the computer is working as DVR for 30 days, an CCTV software installed in each operation control room allows only authorized hosts to view & control the system, and then each system is linked via a digital connection (fiber-optics) to central headquarters in Mexico City, where images received are displayed in a central control room, and authorized end users can control any of the systems & record the images obtained for further analysis.

This solution had two additional challenges: first, in the last 3 installations the systems had to be installed in facilities where the existing buildings did not have the necessary height to obtain a satisfactory surveillance of the ports; and second, in the proposed locations where a future system would be installed there were no TCP/IP connectivity.

The height challenge was solved by the construction of 2 stainless steel towers in the chosen location in 2 sites, at the top of which the full systems were installed and the 3rd installation the system was installed at the top of a water tank that had both the height & surface needed to support it. Actual heights of stainless steel towers are 35 and 35 meters (114 & 147 feet).

We provided a special mounting to reduce vibration effect when tele-zooming and system is very stable even operate during high wend weather, in addition to special mounting we are using Video stabilizer to illuminate vibration effects.

For the site where fiber optics was not available, we used TCP/IP wireless links to connect the Long Range Surveillance Systems to nearest fiber-optics point, In the last installation the distance between the System & nearest fiber-optics location where 24 km LOS.



United Vision Solution, LLC

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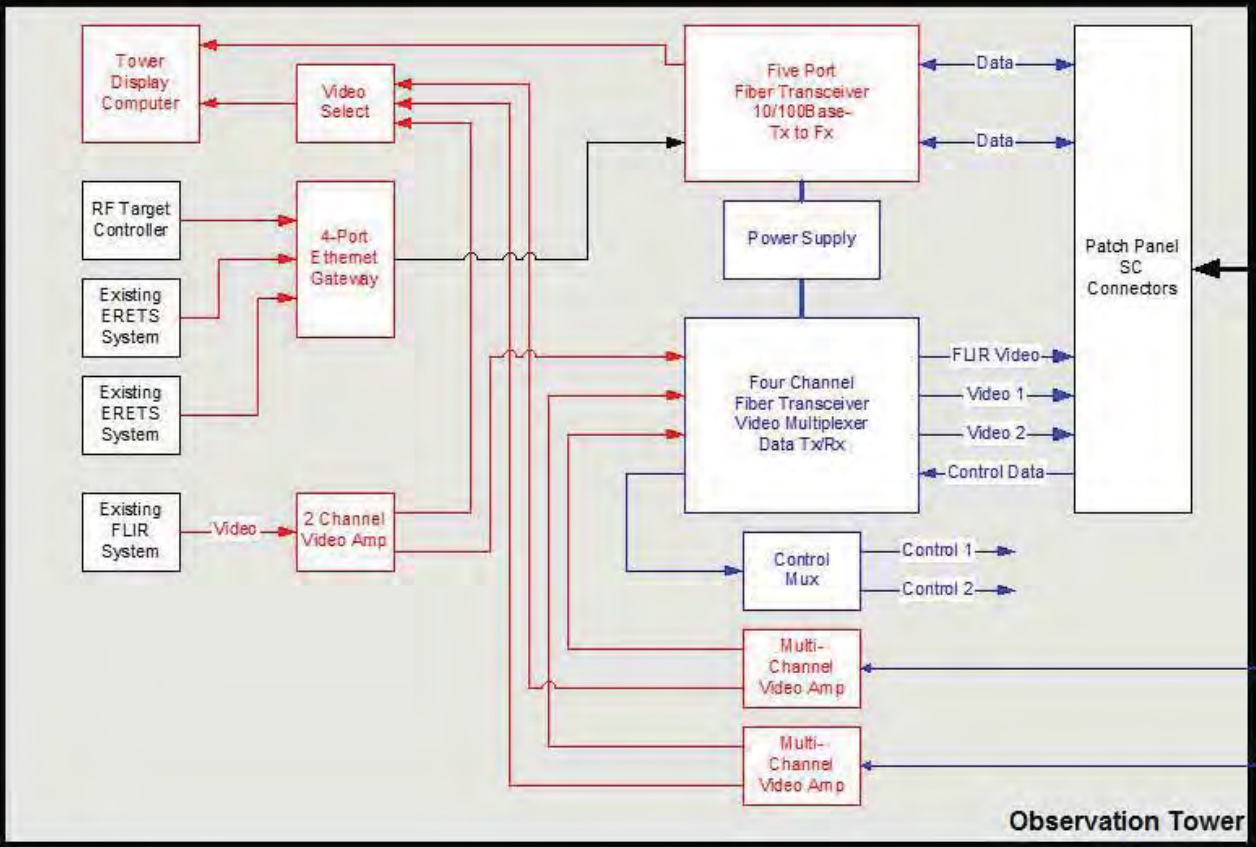
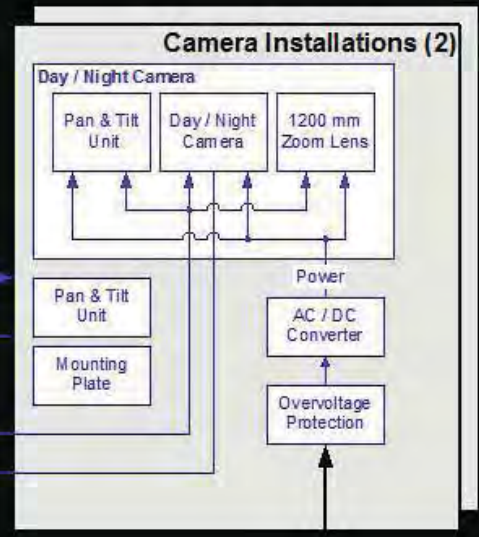
US Airforce Long range Camera system.

Using Fiber Optics for communication and Integrated with FLIR Thermal Camera System





Eagle Vision EV3000
Dual Camera System
Thermal and
Color EMCCD

PAN/TILT THERMAL & COLOR CAMERAS

SYSTEM CONTROL

The tracker software is designed to be controlled via any of the following inputs:

- An off-the-shelf joystick controller
- TCP/IP – 100/10 mbs
- RS232/RS422
- PC Keyboard

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Long Range Camera
1000mm PTZ
EV3000-P-EMCCD 1000
FARO

United Vision Solutions

UVS

Long Range Day Night Camera

CCTV Surveillance Systems

Coastal, Ports, offshore, and Marine applications