DefendIR™

INTEGRATED THERMAL/CCD CAMERA

The DefendIR is an industry leading mid-range thermal imager that can see in complete darkness and through a multitude of environmental conditions including smoke, rain, snow, dust and dense fog. The DefendIR is based on Forward Looking InfraRed (FLIR) technology developed for the U.S. Military. The DefendIR vaults ahead of conventional FLIR capabilities through the innovative use of VisionSense™ which combines video feeds from both a visible light (CCD) camera and an infrared camera. It offers user-controlled, customized real time mixing and merging of the two visual sources. This generates the ability to penetrate glare, as well as see through windows, glass or water.

The DefendIR is ideally suited for day and night perimeter security, maritime surveillance and DHS/DoD applications. Offering fifteen lens and detector combinations, each camera can be customized to meet detailed range performance requirements. Featuring a sleek integrated pan and tilt design, the camera is capable of continuous 360° panning and a +/- 80° tilt withstanding temperatures ranging from -40° to +60°C. The ruggedized housing is environmentally sealed to meet NEMA 4 and IP65 specifications and has been tested and certified by an independent lab. In 2004, the DefendIR withstood the full wrath of Hurricane Ivan as it made landfall on the Florida Panhandle, maintaining full operational performance throughout the storm.

Out of the box, the DefendIR is ready to integrate into your system. It supports most protocols used in commercial and military applications and can be easily integrated into existing fiber, wireless or IP networks. It can also interface with VMD, radar, UGS or other trigger sensors for a “slew to cue” solution.

FEATURES

- Ease of integration
- See objects in complete darkness and in adverse weather conditions
- Continuous 360° panning
- VisionSense™ technology combine infrared and CCD Imagery in real time
- Choose from 15 lens and detector combinations for tailor-made range performance
- NEMA 4 & IP65 Certified

icx™ technologies

NEW THREATS.
NEW THINKING.

SPECIFICATIONS

Video Output	RS-170 (NTSC) or CCIR (PAL)
Serial Interface	RS-232, RS-422, RS-485
Power Input	10-28 VDC or 220/110 VAC 50/60 Hz
Power Consumption	<22 Watts (nominal)
Weight	<15 lbs.
Operating Temperature	-40° to +60° C
Environmentally Sealed	NEMA 4 & IP65 Certified
Azimuth Control	Continuous 360°
Elevation Control	-80° to +80°
Pan & Tilt Slew Rate	0° / sec to 110° / sec
Pointing Accuracy	Pan ± 1/2 ° Tilt ± 1/2 °

Thermal Camera

Detector	Uncooled, Vanadium Oxide Microbolometer
Frame Rate	30 hz (60hz optional)
Resolution	320 x 240
Spectral Response	LWIR
IR Lens Options	25mm, 50mm, 100mm, 30/90mm, 45/135mm
IR Zoom	2x and 4x Digital Zoom
Focus	Automatic (Optional)
Thermal Time Constant	<30 msec
Detector / Pixel Size	51µm, 37.5µm, or 25µm
Gain / Level Controls	Automatic or Manual
NETD	<50 mK for U.S. Customers <85 mK for International Customers

CCD Camera

CCD Camera	Narrow FOV 2.0° Wide FOV 42°
Image Stabilization	Yes
Zoom	Optical: 26x Digital: 12x Total: 312x
Minimum Illumination	2.0 lux/1/60 sec (NTSC) 0.14 lux/1/4 sec (NTSC)
Starlight Mode	0.7 lux/1/60 sec (NTSC) 0.05lux/1/4 sec (NTSC

Thermal Image

VisionSense™

CCD Image

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