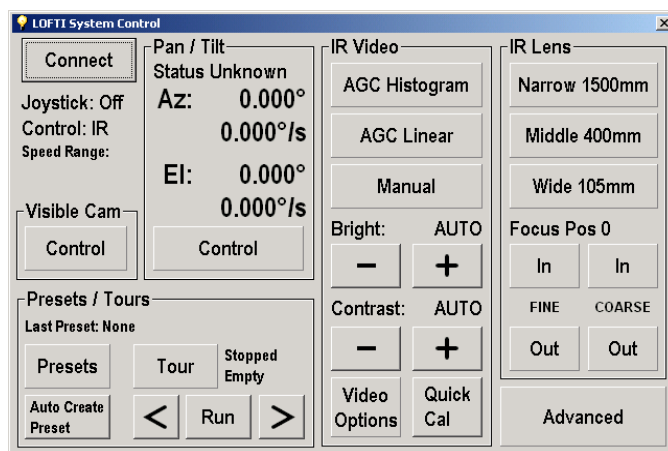


ReconIR 100/500 – Outdoor Thermal Imaging Camera

Ultra high sensitivity, intermediate range outdoor thermal imaging camera

The ReconIR is a completely ruggedized, outdoor thermal imaging camera system. Complete with self-contained environmental conditioning and pressurized housing, ReconIR can handle a wide variety of ambient conditions, from cold extremes to desert heat.

At the heart of the ReconIR system is a 320 x 240 Indium Antimonide cryocooled Focal Plane, specially packaged to take advantage of a wide variety of lens focal lengths. With an optical speed of f/4.0, the ReconIR provides extreme sensitivity for the most demanding applications and mission requirements.



Provided with a standard 100mm/500mm Dual Field of View lens, ReconIR 100/500 is ideal for intermediate range applications where personnel identification is important at ranges up to 3 miles. Other models and lens options are available, with lens focal lengths varying from 50mm up to 250mm, with multiple FOV options available.

Control of ReconIR 100/500 is done over standard Ethernet LAN connection, and the exclusive CommandIR software provides complete control over all features of the system.

Features

- Optical lens speed of f/4.0 provides high sensitivity and short integration times
- 3 to 5 micron InSb detector; 320 x 240 pixels
- Most cost-effective high resolution Indium Antimonide sensor for clear, sharp imagery
- Complete environmental conditioning allows for extended temperature operation
- High performance, heated, optics maintain system integrity over a wide range of conditions
- Simple joystick controlled Windows GUI control software allows for easy control of system over standard Ethernet interface
- Standard Dual Field of View Lens
 - 100mm (5.5 degree HFOV)
 - 500mm (1.1 degree HFOV)
- Dual video operational mode allows for independent video or genlocking of multiple units together
- User selectable video output options include polarity change, multiple color maps, and multiple AGC Regions of Interest
- Internal two-point calibration flag allows for recalibration and in-field adjustments
- Fully integrated pan/tilt positioners available to provide complete surveillance solution and avoid integration nightmares

ReconIR 100/500 Specifications

Optical

Fields of View..... 2
Focal Lengths 100mm, 500mm
Geometric f/number f/4.0

100mm Lens:
HFOV 5.5°
VFOV 4.1°

500mm Lens:
HFOV 1.1°
VFOV 0.8°

Optional Lens Focal Lengths:
50mm, 100mm, 150mm, 250mm

Lens Protective Window AR coated Silicon

Mechanical

Dimensions:
Height..... 12 in
Width..... 10 in
Length 30 in
Weight..... < 50 lbs
Mount 3/8 x 16 Threaded Holes

Electrical

Input Voltage..... 12/240 VAC, 50/60Hz
Nominal Power..... 150 W max, 25 W typ

Environmental

Internal N₂ Purge Pressure 3 psig max
Ambient Operating Temp..... -40 °C to +71 °C
..... (-40 °F to 160 °F)
Storage Temp -40 °C to +71 °C
..... (-40 °F to +160 °F)
Operational Altitude 3000 m (10,000 ft)
Transit Altitude 12,000 m (40,000 ft)
Humidity 100%

System

Nominal Sensitivity..... < 40 mK
Nominal Integration Time..... 3 msec
Video Frame Rate 60 frames/second
Geometric Cold Shield Efficiency 100%
Output Video RS-170
Sensor Resolution..... 320 x 240
Sensor Pixel Pitch..... 30 microns
Cool Down Time < 8 min at 30 °C ambient

Display Options

Color Maps 4
Polarity White/Black hot
AGC Regions of Interest..... 3

Control Interface

Interface Type..... Ethernet
Video Outputs 2
..... 1-master, 1 genlock

Connectors

Military Bayonet Specifications MS3114

Pan/Tilt Control

Waypoints 100
Tours 32
Waypoints per Tour 32
Calibration..... Automatic

Control Interface

Ethernet Interface Bandwidth > 1 Mbps
Auxiliary Ethernet Ports 4
Wireless Ethernet Specifications 802.11b

Features and Specifications subject to change without notice