

HIGH-DEFINITION INFRARED CAMERA

HD-IR MW INSB

TEL@PS

A HIGH-RESOLUTION INFRARED CAMERA

The HD-IR infrared camera is a high-resolution midwave scientific cameras that allows the analysis of events or targets with the highest possible detail by producing sharp, crisp images. The camera's high sensitivity and multispectral capabilities make it the ideal tool for applications such as surveillance of vast areas and high-end R&D.



KEY BENEFITS

1.3 Megapixel image resolution: Produces sharp, crisp images and allows to monitor vast areas and see fine details.

High Data Rate: High performance electronics produce full-frame thermal images at rates up to 105 fps.

Motorized Filter Wheel: Split the scene signal into four spectral channels and/or increase the camera dynamic range.

High-Speed Internal Memory: 16 GB memory for more than 50 seconds recording and autonomous operation.

Advanced Triggering: Partition internal memory into segments for back to back recording. Hardware TTL or automatic software trigger with pre and post triggering capabilities.

IP67 Enclosure: Compact, rugged, and sealed enclosure for use in harsh environments.

Benefit from easy to use, operational flexibility while getting accurate measurements over the camera's entire operation range.

Camera includes:

- Real time processing (NUC, radiometric temperature, in-band radiance)
- Automated exposure control (AEC)
- Enhanced high dynamic range imaging (EHDR)
- Real-time temperature calibration (RTTC)
- Real-time radiance calibration (RTRC)

AVAILABLE LENS

25 mm, 50 mm, 100 mm and 200 mm



Coastline surveillance & IR signature acquisition



IR signature acquisition



DETECTOR SPECIFICATIONS	HD-IR
Detector type	InSb
Spectral range	3 μm to 5 μm (other spectral range available upon request)
Spatial resolution	1280 \times 1024 pixels
Detector pitch	15 μm
Aperture size	F/3
Well depth	5.8 Me- (1.5 Me- selectable)
Sensor cooling	Rotary-stirling closed cycle

TYPICAL PERFORMANCES	
Maximum full frame rate	105 Hz 3 000 Hz @ 132 \times 4
Scene temperature range	0 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ Up to 600 $^{\circ}\text{C}$ (option) Up to 1500 $^{\circ}\text{C}$ (option) Up to 2500 $^{\circ}\text{C}$ (option)
Measurement accuracy	1 K or 1 % ($^{\circ}\text{C}$)
Typical NETD	20 mK

ELECTRONIC SPECIFICATIONS	
Exposure time	0.5 μs to full frame rate
Windowing to increase frame rate	Yes
Dynamic range	16 bits

CAMERA CONSTRUCTION	
Multi-spectral capabilities	4 \times /1" optics, motorized filter wheel (optional, consult Telops)
Lens mount	Bayonet / flanged interface (depends on filter wheel)
Size w/o lens	12.6" \times 7.8" \times 5.3" 320.04 mm \times 198.12 mm \times 134.62 mm
Weight w/o lens	< 5.6 kg

Actual product may differ and specifications are subject to change without notice.

ENVIRONMENTAL SPECIFICATIONS

Environmental rating:
IP67

Operating temperature range:
-20 $^{\circ}\text{C}$ to +55 $^{\circ}\text{C}$

Storage temperature ranges:
-40 $^{\circ}\text{C}$ to +65 $^{\circ}\text{C}$

Operational Vibration
IEC-60068-2-64

Operational Shock
IEC-60068-2-27



BACK PANEL INTERFACE

1. CameraLink base/full
2. Power
3. Thermistor
4. RS-232: Camera remote control
5. IRIG-B
6. HD-SDI
7. Trig-in: Trigger the camera on TTL signal
8. Trig-out: Output TTL signal
9. Ethernet: GigE Vision compatible
10. GPS Input: GPS time and location from external GPS receiver
11. Power 24 VDC, 50W steady-state. Includes 120-230 VAC power supply

