

HIGH-DEFINITION INFRARED CAMERA

HD-IR MW MCT



HIGH-RESOLUTION INFRARED CAMERAS

The HD-IR infrared cameras are high-resolution midwave scientific cameras that allow the analysis of events or targets with the highest possible detail by producing sharp, crisp images. The cameras' high sensitivity makes them the ideal tool for applications such as IR target signatures, surveillance of vast areas and airborne mapping.



HD-IR MW MCT HS



HD-IR MW MCT

KEY BENEFITS

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

Advanced Calibration: Unique proprietary real-time processing of infrared images including NUC, radiometric temperature, automated exposure control (AEC) and enhanced high dynamic range imaging (EHDRI). With these unique features, scientists benefit from ease of use and operation flexibility while getting accurate measurements over the entire camera's operation range.

High Dynamic Range: Unique Telops proprietary non-linearity correction and exposure time independent calibration algorithms ensure observation of scene targets with the highest possible contrast and accuracy.

Accurate Measurement: Radiometric temperature accuracy of $\pm 1^\circ\text{C}$ or $\pm 1\%$ over the entire range.

High Sensitivity: Temperature differences as small as 25mK are detectable.

Coastline surveillance & IR signature acquisition



IR signature acquisition



DETECTOR SPECIFICATIONS	HD-IR MW MCT	HD-IR MW MCT HS
Detector type	MCT	MCT
Spectral range	3.7 μm to 4.8 μm	3.7 μm to 4.9 μm
Spatial resolution	1280 \times 1024 pixels	1280 \times 720 pixels
Detector pitch	15 μm	10 μm
Aperture size	F/3	F/2 or F/4
Well depth	4.13 Me- (1.3 Me-selectable, no calibration)	0.7, 2.2 or 4.4 Me-
Sensor cooling	Split-stirling closed cycle	Rotary-stirling closed cycle

TYPICAL PERFORMANCES		
Maximum full frame rate	50 Hz 18000 Hz @ 264 \times 4	85 Hz
Scene temperature range	0 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ Up to 600 $^{\circ}\text{C}$ (optional) Up to 1500 $^{\circ}\text{C}$ (optional) Up to 2500 $^{\circ}\text{C}$ (optional)	0 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$ Up to 600 $^{\circ}\text{C}$ (optional) Up to 1500 $^{\circ}\text{C}$ (optional) Up to 2500 $^{\circ}\text{C}$ (optional)
Measurement accuracy	1 K or 1 % ($^{\circ}\text{C}$)	1 K or 1 % ($^{\circ}\text{C}$)
Typical NETD	25 mK	25 mK

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

CAMERA CONSTRUCTION		
Camera control	Camera Link	GigE, Camera Link, RS-232
Data output	Camera Link, PAL/NTSC	GigE, Camera Link, HD-SDI
Multi-spectral capabilities	-	4 \times /1" optics, motorized filter wheel (optional, consult Telops)
Lens mount	Flanged interface	Bayonet / flanged interface (depends on filter wheel)
Size w/o lens	14" \times 9" \times 9.5" 355.6 mm \times 228.6 mm \times 241.3 mm	12.6" \times 7.8" \times 5.3" 320.04 mm \times 198.12 mm \times 134.62 mm
Weight w/o lens	< 11 kg	< 5.6 kg
Environmental rating	-	IP67
Operating temperature range	-35 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$	-35 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$
Operational vibration	IEC-60068-2-64	IEC-60068-2-64
Operational shock	IEC-60068-2-27	IEC-60068-2-27

Please note that specifications are subject to change without notice.