

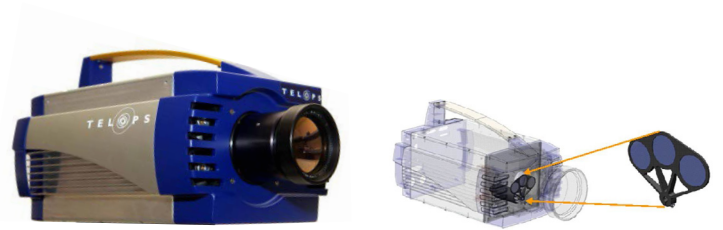
HIGH DEFINITION INFRARED CAMERA

HDR-IR HD

TEL@PS

A HIGH DYNAMIC RANGE INFRARED CAMERA

The HDR-IR HD is a high performance infrared camera which covers extended scene temperature ranges. These cameras maximize camera sensitivity automatically for any static or dynamic scenes. They automatically operate with the best exposure time depending on the scene, and allow to resolve targets up to 2500°C automatically.



KEY BENEFITS

Ultra 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. Fast automated attenuation filters are also included to measure scenes with extreme temperature variations.

High Definition Thermal Imagery: Equipped with a 1.3 Megapixel, InSb or MCT detector, it produces the sharpest midwave thermal images available on the market.

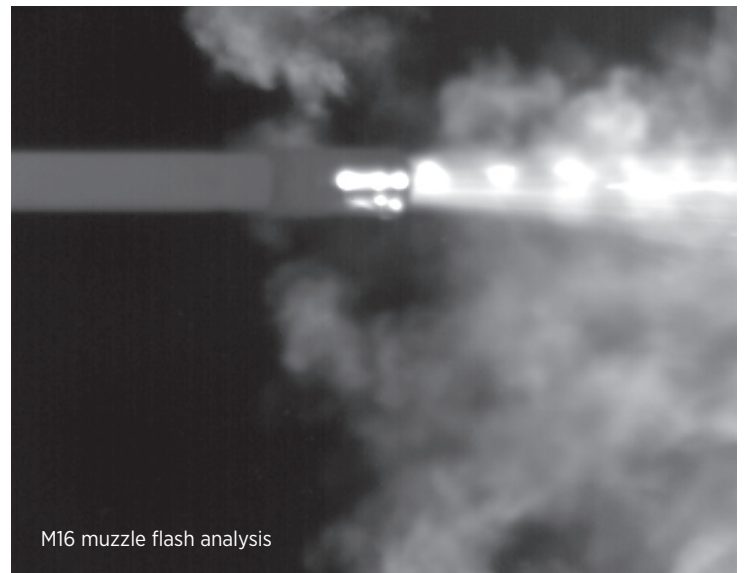
High Data Rate: Maximum data throughput larger than 1 Gigapixel/s. High performance electronics produces full-frame thermal images at rates up to 100 fps.

Advanced Calibration: Unique proprietary real-time processing of infrared images including NUC, radiometric temperature, in-band radiance, automated exposure control (AEC) and enhanced high dynamic range imaging (EHDRI).

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



Aircraft IR signature analysis



M16 muzzle flash analysis

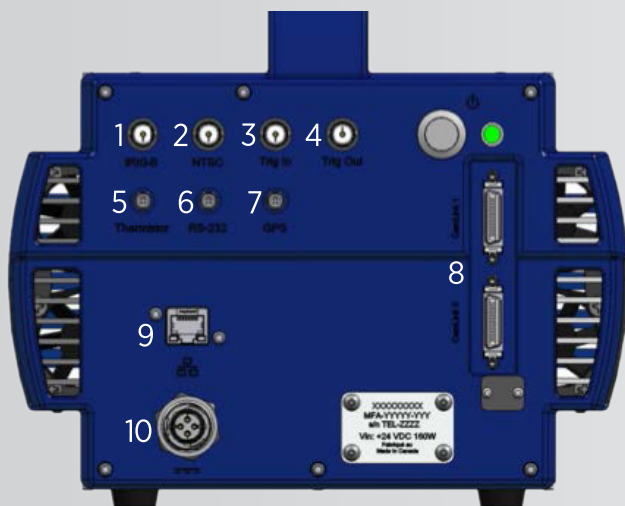
DETECTOR SPECIFICATIONS	HDR-IR HD	HDR-IR HD
Detector type	InSb	MCT
Spectral range	3 μm to 5 μm	3.7 μm to 4.8 μm
Spectral resolution	1280 \times 1024 pixels	1280 \times 1024 pixels
Detector pitch	15 μm	15 μm
Aperture size	F/3	F/3
Well depth	5.8 Me-	4.13 Me- (1.3 Me- selectable, no calibration)
Sensor cooling	Rotary-stirling closed cycle	Split-stirling closed cycle

TYPICAL PERFORMANCES	HDR-IR HD	HDR-IR HD
Maximum full frame rate	105 Hz 2600 Hz @ 64 x 8	50 Hz 18000 Hz @ 264 x 4
Scene temperature range	Up to 2500°C	Up to 2500°C
Measurement accuracy	1 K or 1% (°C) from -15°C to 150°C	1 K or 1% (°C) from -15°C to 150°C
Typical NETD	20 mK	25 mK

ELECTRONIC SPECIFICATIONS	HDR-IR HD	HDR-IR HD
Exposure time	0.5 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	HDR-IR HD	HDR-IR HD
Lens mount	Bayonet interface	Bayonet interface
Size w/o lens	14" \times 9" \times 9" 355.6 mm \times 228.6 mm \times 228.6 mm	17.5" \times 9" \times 9.5" 444.5 mm \times 228.6 mm \times 241.3 mm
Weight w/o lens	< 13 kg	< 13 kg

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



BACK PANEL INTERFACE

1. IRIG-B
2. HD-SDI
3. Trig-in: Trigger the camera on TTL signal
4. Trig-out: Output TTL signal
5. Thermistor: LCC
6. RS-232
7. GPS Input: GPS time and location from external GPS receiver
8. CameraLink base/full
9. Ethernet: GigE Vision compatible
10. Power: 24 VDC 60 W steady state. Includes 120-230 VAC power supply.

