The HDR-IR.

HIGH-DYNAMIC-RANGE INFRARED CAMERAS.

The HDR-IR infrared cameras cover extended scene temperature ranges. These cameras maximize camera sensitivity for any static or dynamic scene. With their unique AEC+ (fast ND-Swap capability), these cameras find the best exposure time depending on the scene, and allow to resolve targets up to 2 500 °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 DATA RATE

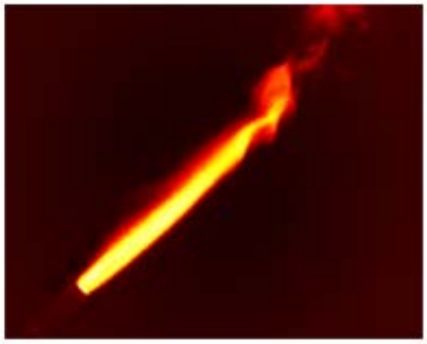
High-performance electronics produce full-frame thermal images at rates up to 1 400 fps.

ADVANCED CALIBRATION

Real-time processing of infrared images including NUC, radiometric temperature, automated exposure control (AEC) and enhanced high-dynamic-range imaging (EHDRI).

EXAMPLES OF TYPICAL USES

High temperature soldering



Sparkling combustion analysis

	MIDWAVE SERIES		VERY LONG WAVE SERIES
DETECTOR SPECIFICATIONS	HDR M100*k*	HDR M1500x	HDR V300
DETECTOR TYPE	Cooled MCT	Cooled MCT	Cooled MCT
SPECTRAL RANGE	3 µm to 4.9 µm	1.5 µm to 5.5 µm	7.7 µm to 11.8 µm
SPATIAL RESOLUTION	640 × 512 pixels	320 x 256 pixels	320 × 256 pixels
DETECTOR PITCH	16 µm	30 µm	30 µm
APERTURE SIZE	F/4	F/2.5	F/2
TYPICAL PERFORMANCES			
MAXIMUM FRAME RATE IN FULL WINDOW	115 Hz	1 400Hz	309 Hz
MAXIMUM FRAME RATE IN SUBWINDOW (STATIC FILTER WHEEL MODE)	120 000 Hz @ 64 × 2	80 000 Hz @ 64 x 4	79 000 Hz @ 64 × 2
TYPICAL NETD	17 mK	25 mK	25 mK
ELECTRONIC SPECIFICATIONS			
MINIMUM EXPOSURE TIME	1 µs to full frame rate	1.1 µs to full frame rate	1 µs to full frame rate
CAMERA CONSTRUCTION			
LENS MOUNT	Bayonet interface	Bayonet interface	Threaded interface

Specifications are subject to change without notice.
Other configurations are available upon request.

COMMON SPECS	
SENSOR COOLING	Rotary-stirling closed cycle
STANDARD SCENE TEMPERATURE RANGE	Up to 1 500 °C
WINDOWING TO INCREASE FRAME RATE	Yes
DYNAMIC RANGE	16 bits
MEASUREMENT ACCURACY	1 K or 1 % (°C) from -15°C to 150°C
SIZE W/O LENS	13.8″ × 8.5″ × 9.3″ 352 mm × 216 mm × 236 mm
WEIGHT W/O LENS	< 13 kg

The automated 3-position filter mechanism.

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