

SCIENTIFIC THERMAL INFRARED CAMERA.

The M100hd is a cooled, high-performance scientific thermal infrared camera designed to provide excellent image quality and impressive thermal sensitivity. It features our unique real-time calibration and is an excellent choice for a variety of scientific and industrial applications.

KEY BENEFITS

HIGH FRAME RATE

Maximum data throughput is larger than 1 Gigapixel/s. High performance electronics produce thermal images at rates of more than 100 fps in full-frame mode. Sub-windows can be acquired at rates up to 1200 fps.

HIGH-SPEED INTERNAL MEMORY

1 GB memory for autonomous operation.

HIGH SENSITIVITY

Temperature differences as small as 30 mK are detectable.

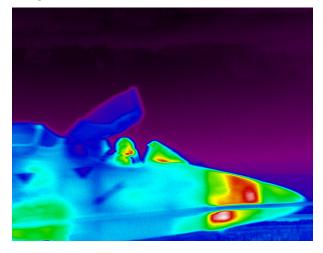
ADVANCED CALIBRATION

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

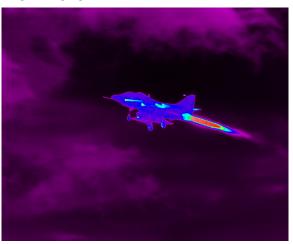
With these unique features, scientists benefit from ease of use and operation flexibility while getting accurate measurements over the entire camera's operation range.

EXAMPLES OF TYPICAL USES

IR signature



Target ranging



FAST M100hd		
SPECIFICATIONS	FAST M100 <i>hd</i>	
DETECTOR TYPE	Cooled InSb	
SPECTRAL RANGE	1.5 μ m to 5.4 μ m (3 to 5 μ m optional)	
SPATIAL RESOLUTION	1 280 × 1 024 pixels	
DETECTOR PITCH	10 μm	
APERTURE SIZE	F/3	
MAXIMUM FRAME RATE IN FULL WINDOW	100 Hz	
MAXIMUM FRAME RATE IN SUBWINDOW	1 200 Hz @ 64 × 8	
TYPICAL NETD	30 mK	
MIN. EXPOSURE TIME	0.5 μs to full frame rate	
LENS MOUNT	Bayonet interface	



Jet engine IR signature measurement



Helicopter IR signature characterization

OTHER SPECS & FEATURES	
Rotary-stirling closed cycle sensor cooling	Gig-E, Camera Link
Blackbody-free permanent calibration (up to 150 °C)	Trigger In, Trigger Out
Calibration up to 2 500 °C (optional)	SDI, GPS, IRIG-B, RS232 and thermistor ports
16 bits dynamic range	Lock-In (optional)
Automatic exposure control (AEC)	Weight: < 6 kg
Enhanced high-dynamic-range imaging (EHDRI)	Size w/o lens: 12.6" × 7.8" × 6.9" 321 mm × 199 mm × 176 mm