



Multispectral Infrared Camera

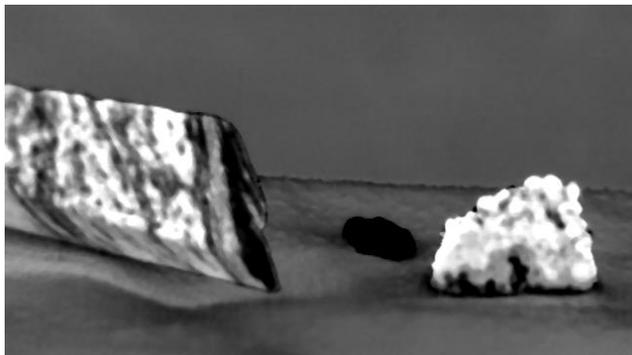
MS-IR

A MULTISPECTRAL INFRARED CAMERA

The MS-IR infrared cameras allow to split the scene signal into eight different spectral bands rather than only one broadband image hereby allowing target spectral signature analysis. The filter wheel is a fast rotating mechanism designed to maximize the cameras' frame rate and can be used in either fixed or rotating mode. Rotating speed is user adjustable up to 100 Hz, therefore it can support a frame rate up to 800 fps.



Key Features and Benefits



Quartz mineral identification



Methane detection and identification

Multispectral Capabilities: Performs 8-channel multispectral analysis using a high-speed filter wheel. Rotating speed is user adjustable up to 100 Hz, therefore it can support a frame rate up to 800 fps. In fast rotating mode, the image acquisition is synchronised so that one image per filter is acquired.

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.

Optional: Fast automated attenuation filters are ideal to measure scenes with extreme temperature variations.

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

Accurate Measurement: Radiometric temperature accuracy of ± 1 °C or ± 1 % over the entire range.

High Sensitivity: Temperature differences as small as 20mK are detectable

Detector Specifications	MS-IR MW	MS-IR VLW
Detector type	MCT	MCT
Spectral range	3 μm to 4.9 μm	7.7 μm to 11.8 μm
Spectral resolution	640 x 512 pixels	320 x 256 pixels
Detector pitch	16 μm	30 μm
Aperture size	f/4	f/2
Sensor cooling	Rotary-stirling closed cycle	Rotary-stirling closed cycle
Typical Performances		
Maximum full frame rate	115 Hz	300 Hz
Scene temperature range	Up to 1500°C	Up to 1500°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		
Exposure time	0.2 μs to full frame rate	0.5 μs to full frame rate
Windowing	yes	yes
Dynamic range	16 bits	16 bits
Camera Construction		
Multi-spectral (option)	8x / 1" optics Fixed or RAW fast rotating	
Lens mount	Janos bayonet interface	Janos threaded interface
Size w/o lens	14" x 9" x 9"	
Weight w/o lens	< 13 kg	

User Interface

1. Trig-in: Trigger the camera on TTL signal
2. IRIG-B
3. Thermistor: LCC
4. Power: 24 VDC 60W steady-state
5. Trig-out: Output TTL signal
6. NTSC/PAL
7. GPS Input: GPS time and location from external GPS receiver
8. CameraLink base/full

