HYPERSPECTRAL SPATIALLY-RESOLVED



HS-IR Family



SPATIALLY-RESOLVED INFRARED SPECTROMETER (SPIRS)

KEY FEATURES



HIGH SPECTRAL RESOLUTION: DOWN TO 1 CM⁻¹



HIGH TEMPORAL RESOLUTION



WIDE BANDWIDTH: COVERS THE MWIR, LWIR RANGES (1.47 – 12.2 MM)



COMPACT AND WELL ADAPTED FOR REMOTE LOCATIONS SpIRS is a fast-scanning interferometer modulator equipped with field imaging optics, designed specifically for hyperspectral applications. Its configuration offers acquiring on two 8 x 8 infrared detectors simultaneously at full-frame rate of 45 frames/sec at a spectral resolution of 16 cm⁻¹.

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HS-IR Family



Side view of a fighter aircraft

sing Tools View I 0 Q Q # + L 1.5 1.0 1.5 3.89 32768 41478 scan numbe - 16 4,000 6,00 2,000 4,000 65 kHz cutoff 1.5 1.0 1,000 [5,2 1 cm off GPS Reset 0.0 Altitude

Live spectra 1 cm $^{-1}$ resolution 8 x 8 pixels with close-up on 4 x 4 pixels

SPECIFICATIONS	
Detector Type	Cooled SLS (LWIR), InSb (MWIR), InSb (SWIR) detectors Support up to 2 FPA modules simultaneously
Detector Format	8 × 8 pixels
Spectral Range	5 – 12.2 μm (LWIR) 2.5 – 5.7 μm (MWIR) 1.47 – 2.63 μm (SWIR)
Field of View (FOV)	83 (iFOV: 9.43) mrad (SpIRS Wide-FOV (no telescope) 41.5 (iFOV: 4.71) mrad SpIRS Medium-FOV (telescope 2x) 13.8 (iFOV: 1.73) mrad SpIRS Narrow-FOV (telescope 6x)
Measurement Rate	Up to 45 DC/s (At 16 cm ⁻¹ resolution)
Typical NESR	\leq 15 nW/sr/cm ² /cm ⁻¹ (for wavelengths \leq 5 µm) \leq 25 nW/sr/cm ² /cm ⁻¹ (for wavelengths \leq 5 µm)
Dimensions	76 x 52 x 46 cm (L x W x H) (without accessories)
Weight	70 kg (Without telescope)
Power Consumption	< 240 W for 115 or 240 VAC 50 to 60Hz
Operational Temperature	-10 °C to +40 °C

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