HYPERSPECTRAL SPATIALLY-RESOLVED

TELOPS
EXOSENS GROUP

HS-IR Family

SPATIALLY-RESOLVED INFRARED SPECTROMETER (SPIRS)

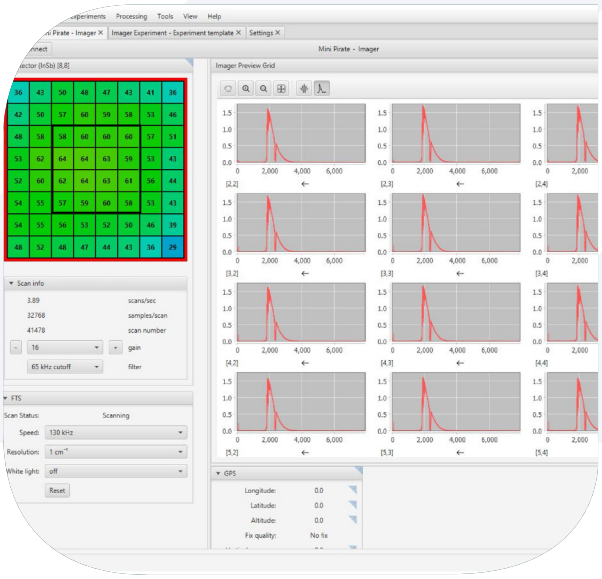
KEY FEATURES

- **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}.

HS-IR Family

Side view of a fighter aircraft



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	≤ 15 $nW/sr/cm^2/cm^{-1}$ (for wavelengths ≤ 5 µm) ≤ 25 $nW/sr/cm^2/cm^{-1}$ (for wavelengths ≤ 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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INFRARED IMAGING

EXOSENS
REVEAL THE INVISIBLE