HYPERSPECTRAL SINGLE-PIXEL

HS-IR Family

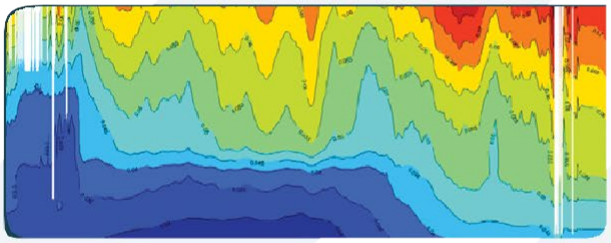
ATMOSPHERIC SOUNDER (ASSIST II)

KEY FEATURES

- **HIGH SPECTRAL RESOLUTION: DOWN TO 1 CM^{-1}**
- **HIGH TEMPORAL RESOLUTION**
- **WIDE BANDWIDTH: COVERS THE MWIR, LWIR RANGES (3 – 19 MM)**
- **OUTSTANDING RADIOMETRIC ACCURACY AND INSTRUMENT TO INSTRUMENT REPRODUCIBILITY**

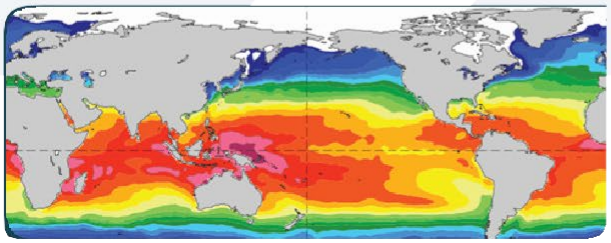
The ASSIST-II is a field deployable sounder which uses Fourier Transform technology. It is the latest development in ground based atmospheric sounding spectrometer. Its configuration is rugged, compact and can be adapted to various environment, such as ground and sea platforms. Thanks to its advanced software suite, it can be operated 24/7 to provide atmospheric profiles of various components at high temporal and spectral resolution as well as a wide choice of other applications.

HS-IR Family



Trace gases concentration profiles at high temporal resolution automatically generated by the ASSIST II

Typical applications



Sea surface skin temperature

SPECIFICATIONS	ASSIST SERIES
Detector Type	HgCdTe (MCT), InSb detectors
Detector Format	Single-Pixel
Spectral Range	3 - 19 µm (Optional extended range from 2 to 25)
Spectral Resolution	1, 2, 4, 8, 16, 32, 64, 128 cm^{-1}
Field of view (FOV)	45 mrad
Measurement rate	1 spectra/s (At finest spectral resolution)
Atmospheric profile rate	0,5 profile/minute (At finest spectral resolution)
Typical NESR	2.5 @ 1300 cm^{-1} $nW/sr/cm^2/cm^{-1}$ (At 16 cm^{-1} spectral resolution and 1s observation time) 0.25 @ 2000 cm^{-1} $nW/sr/cm^2/cm^{-1}$ (At 16 cm^{-1} spectral resolution and 1s observation time)
Dimensions	90 x 79 x 50 cm (L x W x H ASSIST-II Instrument) 140 x 102 x 163 cm (L x W x H ASSIST-II Environmental Enclosure)
Weight	80 kg 195 kg (Including the Environmental enclosure)
Power consumption	< 300 W (ASSIST-II) < 675 W (Including the Environmental Enclosure, AC On) < 300 W (Including the Environmental Enclosure, AC Off)
Operational Temperature	-30 °C to +40 °C (Including the Environmental Enclosure)

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