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)



COMPACT AND WELL ADAPTED FOR REMOTE LOCATIONS

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 environments, 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 resolutions 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 μ m (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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