

» SR - 5000N

Remote Sensing Spectroradiometer



The SR-5000N is a significant step forward for our legacy SR-5000 Spectroradiometer. The improved performance comes with an upgraded, compact design and includes all the functionality of its highly successful predecessor. The SR-5000N is used for both spectral (intensity vs. wavelength) and radiometric (intensity vs. time) measurements.

» TYPICAL APPLICATIONS

Calibration and testing of:

- ▶ FLIR test systems
- ▶ Electro-Optical simulators
- ▶ Electro-Optical sources
- ▶ Electro-Optical jammers
- ▶ Materials

Development and production of:

- ▶ Camouflage materials
- ▶ Electro-Optical countermeasures
- ▶ Electro-Optical jammers
- ▶ Rocket engines
- ▶ Jet engines
- ▶ Electro-Optical heat seekers
- ▶ Electro-Optical sensors

Monitoring and measurement of:

- ▶ Atmospheric Transmission
- ▶ Temperature
- ▶ Emissivity
- ▶ Reflectivity
- ▶ Moisture content
- ▶ Air pollution
- ▶ Gas burning by-products
- ▶ Combustion processes

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Remote Sensing Spectroradiometer

» ADVANTAGES

- ▶ High sensitivity
- ▶ High accuracy
- ▶ Wide spectral band (UV to IR)
- ▶ High Reliability
- ▶ Modular system
- ▶ Usable in laboratory or field

» FEATURES

- ▶ Automatic self calibration
- ▶ Real-time data analysis and display
- ▶ Rapid scan rates
- ▶ Integrated with imaging system
- ▶ Spectral mode measurements (radiance vs. wavelength)
- ▶ Radiometric mode measurements (radiance vs. time)
- ▶ Modern Software
- ▶ Accurate even for measurements of objects that are at ambient temperatures

» SIGNAL PROCESSING

- ▶ Signal averaging for improved sensitivity
- ▶ Mathematical computation with spectral data
- ▶ Transient analysis of rapidly occurring events
- ▶ 3-D plots (radiance vs. time and wavelength)
- ▶ Spectral emissivity measurement
- ▶ Effective temperature measurement
- ▶ Countermeasures analysis

» SPECIFICATIONS

FOV Options	7.5 mrad (NFOV), 5 deg (MFOV), 10 deg (WFOV) and 20 deg (VWFOV)
Focusing range:	2.5 meters to infinity (NFOV), 1 meter to infinity for all others
Spectral range:	0.2 to 14 μm in spectral mode, up to 25 μm in radiometric mode
Spectral resolution:	<3 nm in the 0.2-1.0 μm band <2% of wavelength in the 1.0-14.2 μm band
Spectral Scan Rate	Greater than 20/sec in high sensitivity mode Greater than 50/sec in high speed mode
Aiming and focus	Integrated CCD and LCD display
Absolute accuracy	Better than +/- 0.2 deg
Noise Performance	Example; 5 mK for an InSb detector at 5.0 μm , 1 Hz bandwidth, 100 deg C blackbody



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