



## **PRESS RELEASE**

### **Field Portable Spectroradiometer for Validating AVIRIS-NG**

**The SR-6500 is designed for applications that require superior spectral resolution.**

*Lawrence, MA – June 12, 2018* –AVIRIS-NG is a unique optical sensor that delivers calibrated images of the upwelling spectral radiance in 224 contiguous spectral channels (bands) with wavelengths from 400 to 2500 nanometers with a 5nm sampling. The main objective of the AVIRIS-NG project is to identify, measure, and monitor constituents of the Earth's surface and atmosphere based on molecular absorption and particle scattering signatures. Research with AVIRIS-NG data is predominantly focused on understanding processes related to the global environment and climate change. Most recently, AVIRIS-NG has been used for measurements spanning coastal zone, mangrove forest, soils, hydrocarbon alteration, mineralogy and other application areas.

The SR-6500 is a full range system that meets this high spectral resolution requirement. The SR-6500 is calibrated for radiance with NIST-traceable standards. It features superior resolution at FWHM:

- 1.5nm @ 700nm
- 3.0nm @ 1500nm
- 3.8nm @ 2100nm

Ultra-high resolution is achieved using three high density solid state thermoelectrically cooled photodiode arrays:

- 1024 element TE-cooled silicon photodiode array detector (VIS-NIR)
- 512 element TE-cooled InGaAs photodiode array detector (SWIR 1)
- 512 element TE-cooled extended InGaAs photodiode array detector (SWIR 2)

The SR-6500 features the following Noise Equivalence Radiance (NER) sensitivity with a 1.5 meter fiber optic:

- $1.0 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 400nm
- $2.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 1500nm
- $6.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 2100nm

The SR-6500 is available with optional EZ-ID sample identification software with three mineral spectral libraries for soil analysis and mineral identification. A Custom Library Builder module allows you to build your own library by scanning known samples and saving these high resolution scans to match against.

For more information, visit:

<https://spectralevolution.com/applications/remote-sensing/validating-aviris-ng/>

**About SPECTRAL EVOLUTION**

Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers. SPECTRAL EVOLUTION spectrometers are used worldwide for many mission-critical lab and field applications in mining, remote sensing, vegetative studies, ground truthing, environmental and climate studies, developing satellite calibrations, and more, due to their reliable, robust, rugged design and user-friendly one-touch features.

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