The RS-5400 provides high resolution/high sensitivity in a portable spectroradiometer for field or laboratory use. The RS-5400 has a spectral range of 350-2500nm and three high density photodiode array detectors: 512 element UV-enhanced Silicon array for 350-1000nm; 512 element Extended InGaAs photodiode array for 1000-1900nm; and a 512 element Extended InGaAs photodiode array for 1900-2500nm. The unit is lightweight and runs off a 100-240V AC Universal 50-60Hz power supply or Lithium-ion batteries.

The RS-5400 provides high resolution and high sensitivity for remote sensing applications for in situ field measurements. Applications include:
- Vegetation studies
- Environmental research
- Soil analysis, mapping and profiling
- Ground truthing
- Geological remote sensing
- Solar radiance and irradiance research
- Species identification
- Lab applications including materials identification

The RS-5400 is designed for field work with a rugged chassis, no moving optical parts, and rugged metal clad fiber optic cable that’s field replaceable. It features one touch operation with auto-dark current and auto-exposure. Communications include wireless Bluetooth and USB connection. It includes DARWin SP Data Acquisition software that is Windows 7/8/10 compatible and saves all files as ASCII.

**RS-5400 Technical Specifications**

- **Spectral range**: 350-2500nm
- **Photodiode Arrays**:
  - 512 element UV-Enhanced silicon detector (VIS-NIR)
  - 512 element TE-cooled InGaAs detector (SWIR 1)
  - 512 element TE-cooled extended InGaAs detector (SWIR 2)
- **Minimum scan speed**: 100 milliseconds
- **Spectral resolution**:
  - 2.5nm @ 700nm
  - 5.5nm @ 1500nm
  - 5.8nm @ 2100nm
- **Noise Equivalence Radiance (with 1.2 meter fiber optic)**:
  - 0.5x10^-9 W/cm^2/nm/sr @ 400nm
  - 0.2x10^-9 W/cm^2/nm/sr @ 1500nm
  - 2.5x10^-9 W/cm^2/nm/sr @ 2100nm