



CalibraSpec 6500A

Ultimate Stability and Spectral Resolution

The Spectral Evolution CalibraSpec 6500A spectroradiometer delivers unparalleled accuracy of spectral measurements in a portable package. The CalibraSpec 6500A provides the highest spectral resolution for applications where the ability to accurately discern spectral features is critical. Using all thermoelectrically-cooled photodiode arrays, the CalibraSpec 6500A is engineered specifically for accuracy, stability, and repeatability of measurements.

The CalibraSpec 6500A features:

- Drift stability of 0.1% for greater accuracy of long-term stability measurements of integrating spheres and light sources
- A temperature controller maintains the instrument housing at a stable temperature to minimize warm-up time.
- All detector temperatures are integrated into DARWin™ SP Data Acquisition software readout for monitoring
- Automatic integration of all detectors and dark current correction for unparalleled signal-to-noise ratio
- High-transmission fiber optic cable radiometrically to NIST standard.
- Optional radiometrically calibrated optics such as lenses and cosine receptors

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Ultra-High Resolution for Demanding NIR Spectroscopy Applications

CalibraSpec 6500A Technical Specifications:

- **Spectral range:** 350-2500nm
- **Photodiode Arrays:**
 - 1024 element TE-cooled silicon detector (VIS-NIR)
 - 512 element TE-cooled InGaAs detector (SWIR 1)
 - 512 element TE-cooled extended InGaAs detector (SWIR 2)
- **All dispersive optics fixed in place – no moving parts**
- **Auto dark current shutter & auto-exposure control**
- **Fixed metal clad fiber optic cable with SMA-905 input**
(User removable fiber/4 bolts for easy field replacement)
- **Comes complete with DARWin™ SP Data Acquisition Software** (Windows compatible)
- **Minimum scan speed:** 100milliseconds
- **Spectral resolution (FWHM):**
 - 1.5nm @ 700nm
 - 3.0nm @ 1500nm
 - 3.8nm @ 2100nm
- **Noise Equivalence Radiance (with 1.2 meter fiber optic):**
 - 0.6×10^{-9} W/cm²/nm/sr @ 400nm
 - 3.0×10^{-9} W/cm²/nm/sr @ 1500nm
 - 4.5×10^{-9} W/cm²/nm/sr @ 2100nm
- **Auto-dark current measurement**
- **Auto-optimization**
- **Dimensions:** 12.4 x 8.7 x 4.4 inches (31.5 x 22.9 x 38.7 cm)
- **Weight:** 12.64 lbs. (5.73 kg)
- **Operating range:** 0-35°C
- **Communications:** Wireless and USB
- **Instrument Power (Max):** 33W
- **Drift stability:** ≤0.1%



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