

# SPECTRAL EVOLUTION

## SR-6500A—High Resolution and Unsurpassed Drift Stability



### SR-6500A has the highest resolution of any portable spectroradiometer plus unmatched drift stability

Using all thermoelectrically cooled photodiode arrays, the SR-6500A spectroradiometer is built specifically for the high performance that demands unsurpassed drift stability. With the SR-6500A, you can take the spectroradiometer where it's needed and enjoy the following features:

- ◆ Drift stability of  $\leq 0.4\%$  which delivers greater accuracy for long-term stability of integrating spheres
- ◆ Stability is achieved through heating and cooling thermal management features
- ◆ A temperature controller maintains the instrument housing at a stable temperature along with the individually temperature stabilized detector arrays
- ◆ All temperatures are integrated into DARWin software readout for monitoring

Resolution at FWHM for the SR6500A is:

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

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-6500A features the following Noise Equivalence Radiance (NER) performance with a 1.5 meter fiber optic:

- ◆  $0.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 400nm
- ◆  $0.3 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 1500nm
- ◆  $5.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 2100nm



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# SPECTRAL EVOLUTION

## SR-6500A—High Resolution/ High Stability Performance

### SR-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)

Wireless Bluetooth and USB interfaces

Comes complete with DARWin SP Data Acquisition Software

(Windows XP/Vista/System 7/8/10 compatible)

Minimum scan speed: 100milliseconds

Spectral resolution

1.5nm @ 700nm

3.0nm @ 1500nm

3.8nm @ 2100nm

Noise Equivalence Radiance (with 1.5 meter fiber optic)

$0.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 400nm

$0.3 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 1500nm

$5.8 \times 10^{-9}$  W/cm<sup>2</sup>/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:

11 lbs. (4.99 kg)

Operating range : 0-40°C

Communications: Wireless Bluetooth and USB

Instrument Power (Max): 33W

Batteries: Two Rechargeable Li-ion batteries—up to 3 hours

operation each - weight <2 lbs (.9kg) - size

2"x2.5"x4.5" (5.08x6.35x11.43 cm) - 7.4V nominal 94Whr

Drift: ≤0.4%



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