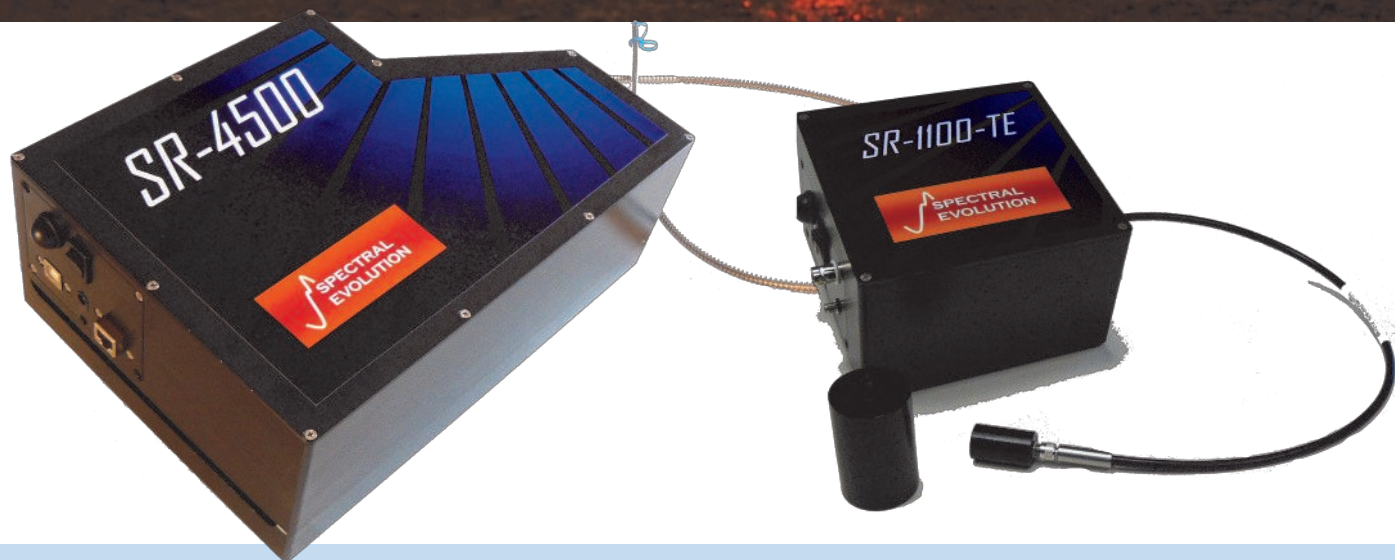


# SPECTRAL EVOLUTION

## Spectroradiometers for Radiometric Calibration Transfer



## Perform Radiometric Calibration Transfer With Precise, Stable, Repeatable Performance

The SR-4500 and SR-1100-TE spectroradiometers deliver the ultimate in high performance radiometric calibration transfer with stable temperature control across a range of ambient temperatures and environments. Using all thermoelectrically cooled photodiode arrays, these spectroradiometers are built specifically for the performance demands of calibration transfer applications. These spectroradiometers are so compact, you can take the calibration process to the sphere—eliminating unnecessary downtime or and cumbersome shipment back to the manufacturer.

Two systems are available depending on the spectral range your application requires:

### SR-4500

- ◆ Spectral range 350-2500nm
- ◆ 512 element TE-cooled silicon photodiode array (350-1000nm)
- ◆ 256 element TE-cooled extended InGaAs photodiode array (1000-1900nm)
- ◆ 256 element TE-cooled extended InGaAs photodiode array (1900-2500nm)

### SR-1100-TE

- ◆ Spectral range 320-1100nm
- ◆ 512 element TE-cooled Si photodiode array



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# SPECTRAL EVOLUTION

## Spectroradiometers for Radiometric Calibration Transfer

The SR-4500 and SR-1100-TE spectroradiometers are ideal for applications involving satellite sensors and integrated spheres that require radiometric calibration. Both spectroradiometers include Bluetooth and USB communications capabilities. They are also equipped with DARWin SP Data Acquisition software that's easy to use and stores data as ASCII files for use with third party software. Easy software routines allow users to upload their own calibration tables. Users can also easily replace fiber optics, minimizing downtime.

### SR-4500 Technical Specifications

Spectral range 350-2500nm

Photodiode Arrays:

**512 element TE cooled Si (350-1000nm) NEW!**

256 element TE cooled extended InGaAs (1000-1900nm)

256 element TE cooled extended InGaAs (1900-2500nm)

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

(fiber is user removable with 4 bolts)

Wireless Bluetooth and USB interfaces

Comes complete with DARWin SP Data Acquisition Software

(Windows XP/Vista/System 7 compatible)

Minimum scan speed: 100milliseconds

Spectral resolution

<3.5nm (350-1000nm)

<10nm @ 1500nm

<7nm @ 2100nm

Sampling bandwidth

1.5nm (350-1000nm)

3.8nm @1500nm

2.5nm @ 2100nm

Noise Equivalence Radiance (with 1.2 meter fiber optic)

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

$1.2 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 1500nm

$1.8 \times 10^{-9}$  W/cm<sup>2</sup>/nm/sr @ 2100nm

Max Radiance @ 700nm (1.2m fiber optic):  $3.0 \times 10^{-4}$  W/cm<sup>2</sup>/nm/sr

### SR-1100-TE Technical Specifications

Spectral range 320-1100nm

Photodiode Array:

**512 element TE cooled Si (350-1000nm) NEW!**

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

(fiber is user removable with 4 bolts)

Wireless Bluetooth and USB interfaces

Comes complete with DARWin SP Data Acquisition Software

(Windows XP/Vista/System 7 compatible)

Minimum scan speed: 100milliseconds

Spectral resolution

<3.2nm (320-1000nm)

Sampling bandwidth

1.5nm (320-1000nm)

Noise Equivalence Radiance (with 1.2 meter fiber optic)

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

Max Radiance @ 700nm (1.2m fiber optic):  $3.0 \times 10^{-4}$  W/cm<sup>2</sup>/nm/sr

### Available Accessories

- ◆ SMA-905 compatible fiber mount
- ◆ Lenses : 1, 2, 4, 5, and 8 degree FOV
- ◆ Spare fiber optic cables (1.2, 1.5, 2 meter and higher –please inquire)



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