Full Range Spectroradiometers
UV-VIS-NIR-SWIR

Fast, full featured and flexible!

All Lab SR Series Spectroradiometers feature NIST-traceable calibration and automatic dark current shutter control for easy one-touch spectral radiance & irradiance measurements.

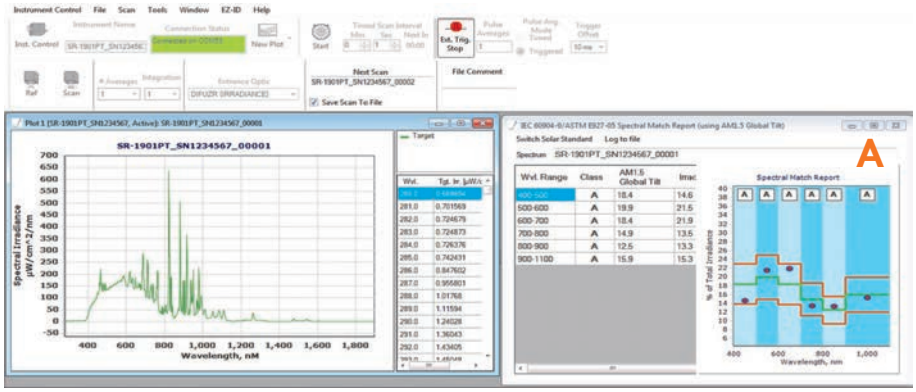
www.spectralevolution.com

Discover our full range of quick, feature-rich, and adaptable laboratory spectroradiometers.

- Full range UV/VIS/NIR/SWIR measurements with just one scan
- No moving gratings or internal fiber optics to break or jam
- No fuss autoexposure control - thanks to 7 decades of dynamic range response
- Fast, accurate one-touch scans - autoscaling & auto dark current shutter
- Easy to set up anywhere - compact, lightweight, single-box design
- DARWin SP Data Acquisition software captures spectra in ASCII format for use with third party software - no post-processing required

Model	CalibraSpec 6500A	CalibraSpec 4500A	RS-5400	SR-2500	SR-1901PT	PrimaSpec
Spectral Range	350-2500 nm	350-2500 nm	350-2500 nm	350-2500 nm	280-1900 nm	350-2500 nm
Spectral Resolution	1.5 nm @ 700 nm 3 nm @ 1500 nm 3.8 nm @ 2100 nm	3 nm @ 350-1000 nm 8 nm @ 1500 nm 6 nm @ 2100 nm	2.5 nm@700 nm 5.5 nm@1500 nm 5.8 nm@2100 nm	3.5 nm (350-1000 nm) 22 nm @ 1500 nm 22 nm @ 2100 nm	4 nm (280-1000 nm) 10 nm (1000-1900 nm)	4 nm (350-1000 nm) 10 nm @ 1500 nm 10 nm @ 2100 nm
Sampling Bandwidth (nm)	2151 Sampling channels | Data output in 1 nm increments	2151 Sampling channels | Data output in 1 nm increments	2151 Sampling channels | Data output in 1 nm increments	2151 Sampling channels | Data output in 1 nm increments	1621 Sampling channels | Data output in 1 nm increments	2151 Sampling channels | Data output in 1 nm increments
Detector(s)	1024-element UV-enhanced TE-cooled Si Array --- 512-element TE-cooled InGaAs array --- 512-element TE-cooled extended InGaAs array	512-element UV-enhanced TE-cooled Si Array --- 256-element TE-cooled InGaAs array --- 256-element TE-cooled InGaAs array	1024-element UV-enhanced Si Array --- 512-element TE-cooled InGaAs array --- 512-element TE-cooled extended InGaAs array	512-element UV-enhanced Si Array --- 256-element TE-cooled extended InGaAs array	512-element UV-enhanced Si Array --- 256-element TE-cooled extended InGaAs array	512-element Si Array (350-1000nm) --- 256-element extended wavelength array (1000-1900nm)
Calibration	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)	Factory calibrated for radiance and/or irradiance using NIST traceable source (depending upon optics selection)	Not calibrated for radiance measurements.
Noise Equivalence Radiance W/cm2/nm/sr **Signal to Noise Ratio (SNR)-PrimaSpec**	$0.4x10^{-9}$ @ 400 nm $0.2x10^{-9}$ @ 1500 nm $2.0x10^{-9}$ @ 2100 nm	$0.2x10^{-9}$ @ 400 nm $0.2x10^{-9}$ @ 700 nm $0.9x10^{-9}$ @ 900 nm $1.2x10^{-9}$ @ 1500 nm $1.8x10^{-9}$ @ 2100 nm	$0.3x10^{-9}$ @400 nm $0.1x10^{-9}$ @1500 nm $2.5x10^{-9}$ @2100 nm	$0.8x10^{-9}$ @400 nm $1.5x10^{-9}$ @1500 nm $1.8x10^{-9}$ @2100 nm	$0.8x10^{-9}$ @400 nm $1.2x10^{-9}$ @1500 nm	VNIR: 25,000:1 @ 700 nm SWIR 1: 35,000:1 @ 1500 nm SWIR 2: 25,000:1 @ 2100 nm
Stray Light	≤0.1%; VNIR: <0.03%; SWIR<0.02%	≤0.1%; VNIR: <0.03%; SWIR<0.02%	≤0.1%; VNIR: <0.03%; SWIR<0.02%	≤0.1%; VNIR: <0.03%; SWIR<0.02%	≤0.1%; VNIR: <0.03%; SWIR<0.02%	≤0.1%; VNIR: <0.03%; SWIR<0.02%
Software Included	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.	DARWin™ Data Acquisition Data output in ASCII format for easy post processing. Compatible with: All post-processing software, EZ-ID™ software for instant identification & spectral library building and Eigenvector chemometrics modeling software.
Power	12V, 33W	7.5V, 30W	7.5V, 33W	7.5V, 15W	7.5V, 15W	7.5V, 23W
Dimensions (millimeters | inches)	315 x 221 x 112 mm | 12.4 x 8.7 x 4.4 in	315 x 221 x 112 mm | 12.4 x 8.7 x 4.4 in	315 x 221 x 112 mm | 12.4 x 8.7 x 4.4 in	215 x 305 x 89 mm | 8.5 x 12 x 3.5 in	215 x 305 x 89 mm | 8.5 x 12 x 3.5 in	215 x 305 x 89 mm | 8.5 x 12 x 3.5 in
Weight (pounds | kilograms)	13.8lbs | 6.3kg	13.8lbs | 6.3kg	13.8lbs | 6.3kg	7.3lbs | 3.3kg	7.3lbs | 3.3kg	7.3lbs | 3.3kg
Instrument Interface	USB & Wireless Bluetooth® Connection	USB & Wireless Bluetooth® Connection	USB & Wireless Bluetooth® Connection	USB & Wireless Bluetooth® Connection	USB & Wireless Bluetooth® Connection	USB Connection
Integration Time	1 - 1000 ms	1 - 1000 ms	1 - 1000 ms	1 - 1000 ms	1 - 50 ms	1 - 1000 ms
Max Radiance	VNIR: 10 x Solar; SWIR: 2 x Solar	VNIR: 10 x Solar; SWIR: 2 x Solar	VNIR: 10 x Solar; SWIR: 2 x Solar	VNIR: 10 x Solar; SWIR: 2 x Solar	VNIR: 10 x Solar; SWIR: 2 x Solar	VNIR: 10 x Solar; SWIR: 2 x Solar
Wavelength Reproducibility (nm)	0.1	0.1	0.1	0.1	0.1	0.1
Wavelength Accuracy (nm)	0.5	0.5	0.5	0.5	0.5	0.5
Automatic Exposure	✓	✓	✓	✓	✓	✓
Shutter for Dark Scans	✓	✓	✓	✓	✓	✓
TTL & Phototriggering for pulsed measurement	No	No	No	No	Yes	No

All Spectral Evolution Spectroradiometers come with our exclusive DARWin SP data Aquisition Software - an easy to use menu driven software program designed to analyze spectral irradiance, radiance, reflectance, transmittance, absorbance and more...



The exclusive DARWin SP Data Acquisition Module included with each unit allows for full featured instrument control and data handling. (A) The SR-1901PT Spectroradiometer equipped with 2m fiber optic and right-angle cosine diffuser was used to analyze the performance of a pulsed solar simulator as per AM1.5.

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