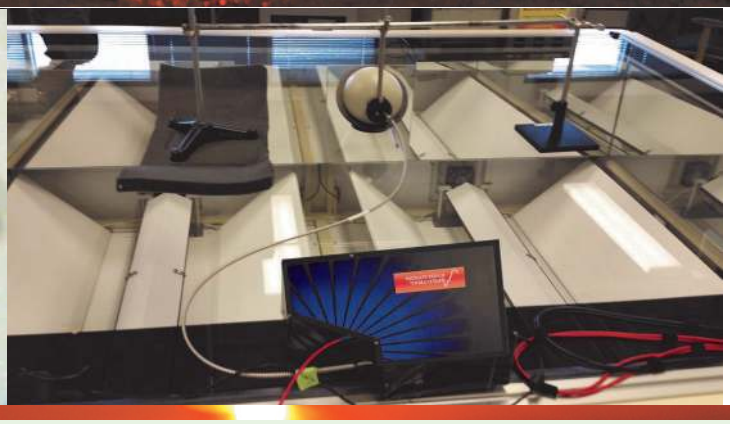
SPECTRAL EVOLUTION

SR-1901PT Portable Spectroradiometer for Pulsed Solar Simulators





SR-1901PT—ideal for the classification of pulsed solar simulators

Solar simulators are used by PV module and solar panel manufacturers to ensure that their products deliver the promised power and performance. The SR-1901PT portable spectroradiometer ensures that a solar simulator meets the Class A, B, or C rating it claims by meeting acceptable tolerances for spectral match to sunlight, uniformity of the light source, and stability of the light source over time.

The SR-1901PT is used for classifying short and long pulse solar simulators for spectral match to AM0 and AM1.5 standards. The SR-1901PT is also used for uniformity and stability measurements. Unlike other systems for solar simulator classification, the SR-1901PT captures the full spectrum from 280-1900nm in a single flash with a 1 millisecond integration time. This allows for spectral matching for short and long pulse simulators in a fraction of the time it would typically take—seconds instead of hours. Features include:

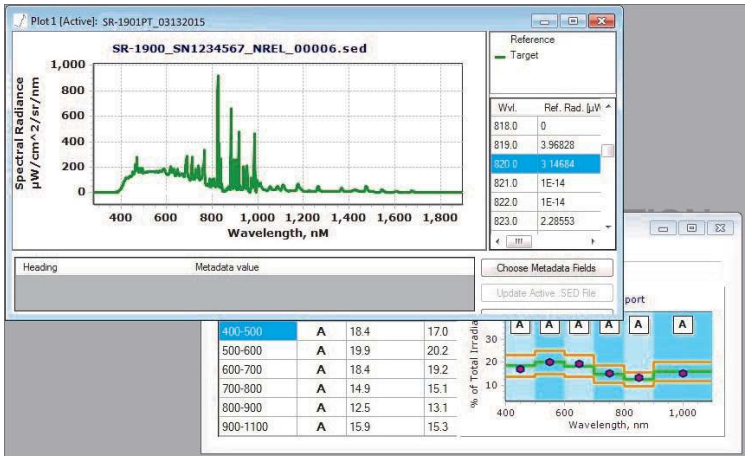
- 512 element UV-enhanced silicon photodiode array
- 256 TE-cooled extended InGaAs photodiode array
- Adjustable integration and scan averaging time
- Internal trigger with SMA-905 port
- 0-100 msec trigger delay increment
- External TTL triggering input port ≤5µsec trigger jitter
- Photodetector jitter ≤100 nsec
- Spectral match to AM0 and AM1.5
- DARWin SP Data Acquisition software makes the SR-1901PT easy to set up and use. DARWin includes pull-down menus for access to the spectral match report capabilites

26 Parkridge Road ◊ Suite 104
Haverhill, MA 01835 USA
Tel: 978 687-1833 ◊ Fax: 978 945-0372
Email: sales@spectralevolution.com
www.spectralevolution.com

SPECTRAL EVOLUTION

Compact portable spectroradiometer for pulsed solar simulators
Technical Specifications:

	SR-1901PT
Spectral Range	280-1900nm
Spectral Resolution	4nm (280-1000nm) 10nm (1000-1900nm)
Sampling Bandwidth	1.5nm (280-1000nm) 3.8nm (1000- 1900nm)
Detectors	512-element UV-enhanced Si photodiode array 256-element TE cooled extended InGaAs photodiode array
Integration time	1 - 50 msec (software selectable)
A/D converter	16 bit
I/O Interface	Wireless Bluetooth & USB2.0
Triggering options	External TTL port with 5 pin connector Phototrigger with SMA-905 port
Trigger delay increment	0 - 100 milliseconds
Trigger jitter	External TTL: ≤5µsec Photodetector jitter: ≤100nsec
Spectral Match	AM0, AM1.5
Software	DARWin SP-PL Data Acquisition- Windows 7-8 compatible
Included	Spectrometer with NIST traceable irradiance calibration, 1.2 meter dual fiber optic with custom diffuser and built-in phototrigger, DARWin SP-PT software, universal 100-240v 50-60hz power supply, Pelican protective foam lined storage case



A pull-down menu in DARWin SP provides access to our spectral matching report capabilities. In this example, the solar simulator has met Class A requirements.



In this example the solar simulator has failed to meet Class C requirements during testing. In instances where a low cost solar simulator is used without testing, this can be a common occurrence and potentially jeopardize revenue and profit.

26 Parkridge Road ◊ Suite 104
Haverhill, MA 01835 USA
Tel: 978 687-1833 ◊ Fax: 978 945-0372
Email: sales@spectralevolution.com
www.spectralevolution.com