



Spectrafy
solar spectral sensors

SolarSIM-GPV

The SolarSIM-GPV enables next-level irradiance monitoring for the PV industry by leveraging spectral measurement to provide Class A irradiance and automated PV spectral correction factors, from a single sensor.

The SolarSIM-GPV provides the PV professional with a powerful tool to minimize project uncertainty and optimize returns by accurately quantifying and eliminating spectral uncertainty from PV performance models and indicators.

Designed to deploy like any other pyranometer, the SolarSIM-GPVs automated software makes understanding and harnessing the benefits of spectral data intuitive and easy.

The SolarSIM-GPV uses filtered photodiodes, to measure sunlight in several narrow wavelength bands. The SolarSIM-G's powerful software then uses these measurements to accurately resolve global spectral and broadband irradiance and PV spectral correction factors.

- **Unique capability**

Class A broadband irradiance and spectral correction from a single pyranometer.

- **Easy-to-use**

Easy to integrate with minimal maintenance required. Automated calculation of spectral correction factors, easily applied in standard PV models.

- **Reduces project uncertainty**

Accurately quantify and eliminate spectral uncertainty from PV performance models and metrics.





SolarSIM-GPV: Specifications

Broadband Irradiance

Spectral range	280 – 4000 nm
Maximum Irradiance	2000 W/m ²
Response Time (95%)	< 0.5s
Zero offset B	n/a
Non-stability (change per year)	< 0.2%
Non-linearity	< 0.5%
Spectral selectivity	n/a
Calibration uncertainty	1.1%
Temperature response	< 0.1% (on-board temp. correction)
ISO 9060:2018 classification	Class A
ISO 9060:2018 sub-category: "Spectrally flat"	Compliant for sunlight
ISO 9060:2018 sub-category: "Fast response"	Optional

Spectral correction factors

Number of panels	9, user defined
Method	Derived from IEC 60904-7
Calculation process	Automated

General

Weight	1.2 kg
Dimensions	132 x 132 x 110 mm
Power supply and use	12 VDC, <1W
Communication	RS-485 ASCII, Direct to PC, serial over ethernet, datalogger
Operating Temperature	-30 to 65 °C
Humidity Range	0 to 100% RH

