

# SPECTRAL EVOLUTION

## PSR-1100 Field Portable Spectroradiometer

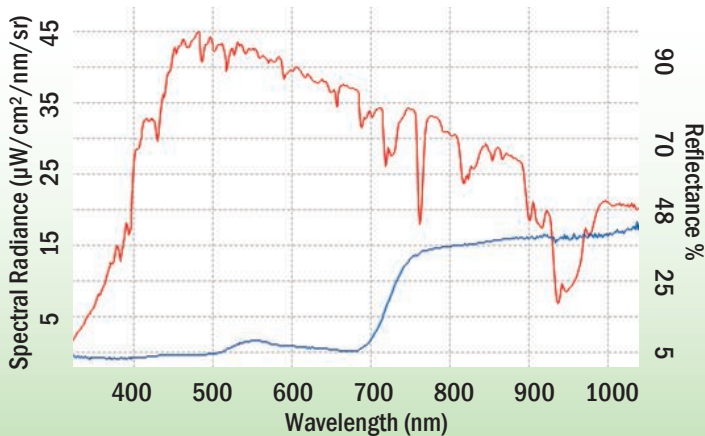
Meet our smallest, lightest full featured field portable spectroradiometer!  
Small in size- big on performance and features including:

- Keypad and LCD display- can take and store 2500 spectra without a computer
- Autoexposure and autoshutter for easy one-touch operation
- Snap-in 2800mAH Li-Ion rechargeable battery for >4 hours of continuous use
- Built-in laser targeting
- Tag spectra with GPS, elevation, photo and voice notes with companion GETAC PS236 PDA
- High reliability- all photodiode array optics for stable calibration
- All reflective optical system for higher efficiency and lower chromatic aberration
- Wireless Bluetooth interface for cable free data connection
- Lightweight- less than 4 pounds



### Ideal for:

- ◆ Remote Sensing
- ◆ Soils & Crops
- ◆ Oceanography & Inland Water
- ◆ Forestry & Ecology



### Suggested application: Leaf Reflectance

Reflectance of grass field section was measured using the PSR-1100 Spectroradiometer with its standard 4° field of view lens. The graphs were generated with DARWin SP Data Acquisition and Analysis software included with each PSR-1100. Red trace represents a control solar scan as measured from a reflectance panel. The reflectance scan of green grass is shown in blue. DARWin SP allows users to plot multiple scans on the same graph for easy comparison using DARWin's built-in analysis features. Data is output in ASCII format and can be exported to many 3rd party programs for further analysis. All units feature automatic exposure control, auto-ranging and auto-shutter for simple one-touch operation.



PSR-1100 Spectroradiometers may be ordered with either a 4° FOV lens (shown above) or with a 1m fiber optic. Lightweight rugged compact case, fingertip control trigger, laser sighting and hand strap allow for convenient one-handed operation in the field.



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## PSR-1100 Field Portable Spectroradiometer

### PSR-1100 SPECIFICATIONS

Spectral Range	320-1100nm
Spectral Resolution	3.2nm
Sampling Bandwidth	1.5nm
Noise Equivalence Radius (1 sec integration time)	8.0x10 <sup>-10</sup> W/cm <sup>2</sup> /nm/sr @400nm 7.0x10 <sup>-10</sup> W/cm <sup>2</sup> /nm/sr @700nm 1.5x10 <sup>-9</sup> W/cm <sup>2</sup> /nm/sr @900nm
Max. Radiance @700nm	1.5x10 <sup>-4</sup> W/cm <sup>2</sup> /nm/sr
Spectrometer Type	4° field of view lens or 25° fiber optic input, Diffraction Grating
Slit	50µm
Detector Type	Tall 512 element Si photodiode array 25µ x 2.5mm pixel dimension
A/D Converter	16 bit
λ Reproducibility	0.1nm
λ Accuracy	0.5nm
Integration Time	8-2000ms
Calibration	Factory calibrated for radiance using NIST traceable source
Internal Battery	2800MAH Li-Ion snap-in battery with charger
Shutter for dark scans	Yes
Targeting	Internal red laser
Internal Memory	2500 scans in stand-alone mode
Automatic exposure	Yes
Software included	DARWin SP Data Acquisition
Power	6-12V; 0.5W
Dimensions	7.0" x 3.25" x 5.75"
Weight	less than 4 pounds
Interface	USB, Bluetooth

### Get the most out of your PSR-1100 with easy-to-use accessories from SPECTRAL EVOLUTION!

- (A) Get rapid data acquisition with the GETAC PS236 ruggedized PDA! The PS236 features built in SIRFstar III GPS, 3 megapixel autofocus camera, voice recorder, altimeter, compass and a high visibility 480x640 pixel VGA display that can be easily viewed in direct sunlight. Each PS236 comes fully loaded with our exclusive DARWin CE Mobile-compatible software package to view and tag scans with GPS coordinates, voice notes and camera images. The built-in wireless Bluetooth interface can also control the PSR-1100
- (B) All SPECTRAL EVOLUTION Field Portable Spectroradiometers may be ordered with our exclusive field-tested convenience accessories including weatherproof travel cases and backpacks, additional Li-Ion rechargeable batteries and chargers, light sources, durable metal sheathed fiber optic cables, reference plates & tripods. For the latest list of accessories, please contact your local SPECTRAL EVOLUTION representative or visit our website at [www.spectralevolution.com](http://www.spectralevolution.com).

A



B



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