spectral evolution

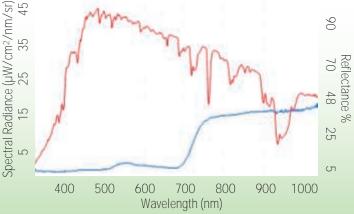
PSR-1100 Field Portable Spectroradiometer

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



- 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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東京都文京区湯島 3-13-8 湯島不二ビル 301 号 TEL: 03-3832-3117 FAX: 03-3832-3118 e-mail: contact@hikari-trading.com http://www.hikari-trading.com/

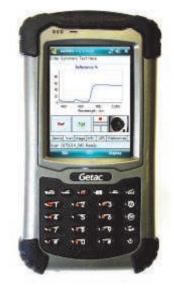
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PSR-1100 SPECIFICATIONS

| Spectral Range | 320-1100nm |
|--|--|
| Spectral Resolution | 3.2nm |
| Sampling Bandwidth | 1.5nm |
| Noise Equivalence Radius (1 sec integration time) | 8.0x10 ⁻¹⁰ W/cm ² /nm/sr @400nm 7.0x10 ⁻¹⁰ W/cm ² /nm/sr @700nm 1.5x10 ⁻⁹ W/cm ² /nm/sr @900nm |
| Max. Radiance @700nm | 1.5x10 ⁻⁴ W/cm ² /nm/sr |
| Spectrometer Type | 4° field of view lens or 25° fiber optic input, Diffraction Grating |
| Slit | 50 µ m |
| 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 Mobilecompatible 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-lon 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.









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