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High-performance, TE-cooled Handheld Hyperspectral Spectroradiometer

EOC-SI-9100

Feature:

- 300-1100 nm;
- 2048x14 pixels CCD;
- resolution: 1.5 nm;
- wavelength sampling interval: 0.4 nm;
- Sensor cooled, performance do not change with ambient temperature;
- High sensitivity, detector quantum efficiency reach up to 60%, NIR sensitivity is 40% higher than traditional PDA detector
- Fast measurement speed, each sampling time <10 ms;
- Light weight and flexible optic fiber probe
- Built in order sorting film or filter, high accuracy
- Dynamic dark current correction, reduce noise
- Display probe inclined angles, laser indicator indicates probe direction, easy to adjust
- Included TF card storage of measuring data, GPS accurate positioning
- Handheld, easy to carry dedicated case
- Touch screen single control mode and PC

Description:

The EOC-SI-9100 is a new handheld hyperspectral field spectroradiometer that employs spectral range between 300-1100nm, and it's applied to fields of remote sensing measurement, crop monitoring, research of forest and oceanography etc.

EOC-SI-9100 field spectroradiometer employs high performance, fast and accurate measurement, easy to operate and held etc. It's configured powerful software package, and applied to measurement of reflectance, radiometry, photometry and colorimetry.





Technical specification:

• Detector: 2048x14 pixels, back-thinned CCD;

• Linearity: > 99%;

• Spectral range: 300-1100 nm;

• Spectral resolution: 1.4 nm@300-1100nm;

• wavelength accuracy: ± 0.5 nm;

• wavelength repeatability: ± 0.3 nm @ ± 10 °C Temp change;

• Spectral sampling interval: 0.6 nm;

• Integration time: minimum: 2.2ms

• hardware average filter: maximum up to 100,000 times;

• outline size: 275×140×85mm;

- weight: 2Kg (spectrometer only);
- Temp/humidity range: 0°C ~ 40 °C (working status)
- Inclined angle accuracy of probe: $<1^{\circ}$ (0° ~ 30°)

Standard accessories:

- 1, Outdoor USB cable;
- 2. Outdoor optic fiber jumper;
- 3. Standard white board;
- 4. Outdoor white board;
- 5, Outdoor case
- 6, Triangle stand;
- 7, standard probe;
- 8, dedicated software

Optional accessories:

- 1, small FOV lens: 1°/3°/5°/8°/10° optional;
- 2. Clip used for transmittance measurement;
- 3. Reflection probe used for reflectance measurement;
- 4. Battery(integrated in spectroradiometer) and charger used for reflection probe;

Standard probe:

Standard probe includes SMA connector, 6-pins waterproof data interface, M12×0.5 threaded hole used for connecting optic fiber, data cables and focusing lens.



Feature:

- Compact and light weight;
- Built-in inclined angle sensor;
- Built-in laser indicator used to indicate probe direction;
- Replaceable focusing transmittance lens, 25mm/16mm/12mm/8mm/6mm optional
- Dimension: 24mm×42mm×56mm



Reflective probe

Optional accessory, built-in tungsten halogen light source used for light compensation and reflective measurement. It consists of SMA connector, 6-pins waterproof data interface connecting optic fiber and data cables.



Feature:

- Compact and light weight;
- 12V chargeable power supply;
- Matched clip to measure transmittance;
- size: 54mm×54mm×56mm

Clip:

Optional accessory, and used together with reflective probe. SMA connector connecting optic fiber is included



Feature:

- Compact and light weight;
- Easy to operate;
- Stable structure

Outdoor white board



Feature:

- Cost effective;
- Excellent Lambert characteristic;
- Non-hydrophilic, easy to clean;
- diameter: 9cm