

Comparison of SPECTRAL EVOLUTION PSR-3500 vs. ASD FieldSpec 3 series Spectroradiometers

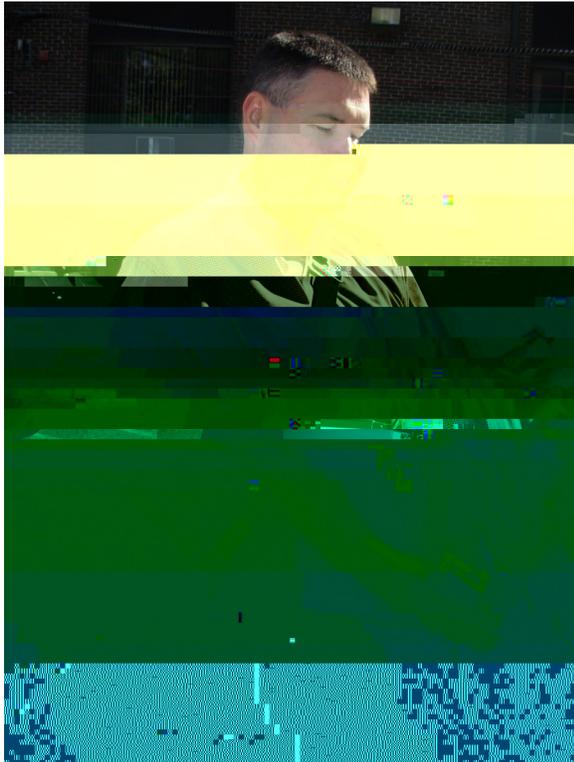
SUPERIOR SIGNAL TO NOISE AND SPECTRAL RESOLUTION- The PSR-3500 has the best combination of spectral resolution and NER values, particularly in the near infrared ranges. For best sensitivity, only SPECTRAL EVOLUTION spectroradiometers can be used with direct attachment FOV lenses that couple directly to the optical path. This is due to its superior diffraction-based optical platform with 3 discrete photodiode arrays (two InGaAs arrays for NIR) for each of the 3 separate spectrometer ranges. Our system requires no light-

FLEXIBILITY– PSR-3500 can be ordered with either a laptop computer and/or a rugged IP-67-rated GETAC handheld personal digital assistant (PS236). For maximum convenience, the PSR-3500 can store up to 500 spectra and can take measurements without a computer– the ASD can't. Both systems communicate with and operate the spectrometer via wireless interfaces or with a wired USB cable on a personal computer. The handheld GETAC also features integral camera, GPS location, compass and altimeter capabilities and contains a high capacity Li-Ion battery that will provide >12 hours of continuous operation on a full charge. We provide our DARWin SP Data Acquisition Module software to run on a laptop computer- and a special version of the program to run on the GETAC's Windows CE Mobile operating system. For field use, the small handheld GETAC makes it very easy to monitor field data as it's being taken and can be used to trigger data collection. The ASD FieldSpec 3 series is only configured to work with a cumbersome laptop with requires the use of a bulky "bellyboard" to run the unit (see photo). The much smaller, lighter weight PSR-3500 is easier to use in the field with the GETAC PS236...or in stand-alone operation.

LIGHTWEIGHT– Easy to carry. At less than 4 kilograms including battery, the PSR-3500 is a lighter instrument to carry in a backpack than the ASD FieldSpec 3 series (5kg not including the bulky NiMH batteries, computer or belly board.). The small, handheld GETAC PS236 PDA has a high quality display designed for viewing in bright sunlight and does not require a laptop computer

light path with a fragile, permanently mounted trifurcated fiber optic cable that can get damaged with routine handling in the field. The use of a trifurcated cable means that the different detectors within the ASD unit are all seeing different parts of the target area. The three detectors within the SPECTRAL EVOLUTION PSR-3500 are all measuring the same target sample due to its beam splitter optical path. This also ensures better transition area data integrity as the spectrum shifts between the 3 detectors. The PSR-3500 does not require internal fiber optics that can be subject to breakage in field use. All SPECTRAL EVOLUTION Spectrometers come with a full 12 month warranty against defects and breakage in use.

FAST OPERATION– Auto-shutter, auto-exposure and auto-dark correction for one-touch operation. No lengthy set-up optimization is needed. The ASD instruments all require a time consuming, tedious optimization step to synchronize the detectors prior to use.



Unlike equivalent ASD models, SPECTRAL EVOLUTION Portable Spectroradiometers feature a lightweight slide-in Lilon battery for >3 hours of continuous use on a single charge. Each unit comes with two batteries and two AC chargers for >6 hours of continuous field use (extra batteries may also be ordered for added range). At ~7 lbs including battery, SPECTRAL EVOLUTION Portable Spectroradiometers can also be easily carried in the field with a shoulder strap (optional). Each unit contains internal memory to store up to 500 spectra, so it is not necessary to carry a personal computer or handheld PDA to operate the instrument. If desired, the unit can also be carried in a backpack (optional accessory).

