

The future of field portable spectroscopy has never been more powerful.



## NaturaSpec Plus with Sensaprobe+

The NaturaSpec™ Plus is the ultimate instrument for the remote sensing scientist. Eliminating the uncertainties usually associated with the calculation of the field of view and the targeting of the samples. Besides spectral data, the instrument also provides a real-time video feed of the actual field of view of the fiber optic or lens attachment. A picture of the field of view is captured with every measurement, along with the angle and distance to the target, and the GPS coordinates.

The new NaturaSpec Plus spectroradiometer for remote sensing applications offers the best spectral resolution and signal-to-noise performance in any field instrument on the market today, giving users the ability to collect lab-quality data in situ over the spectral range of 350-2500nm.



From optics to enclosure, the entirety of the new NaturaSpec Plus spectroradiometer is engineered for fieldwork with these new instrument features as well as Spectral Evolution's exclusive Sensaprobe+:

- Sensaprobe+ with a 6" touchscreen Windows tablet and DARWin software
- Field Swappable Internal Battery
- Smart Power Switch
- Quick release fiber optic mount
- Ergonomic grip for comfort and control
- A built-in inclinometer
- A built-in camera for real-time targeting
- Ultrasonic distance sensor
- Trigger activation to start a scan
- Tripod mountable

The NaturaSpec Plus is the ultimate instrument to build high-resolution libraries and to push the limits of spectral analysis for remote sensing applications including environmental monitoring, climate change research, crop and soil science, agriculture, carbon studies, geological mapping, ground truthing and more.





The NaturaSpec Plus with the Sensaprobe+ allows for consistent measurements by any user at any experience level to ensure that measurements are taken correctly in the field for research applications. See exactly what you are scanning with the embedded camera. It can also be used for vicarious calibration to validate satellite or flyover hyperspectral and multispectral data being used in research.

## Specifications

Model	NATURASPEC PLUS		
<b>Spectral Range</b>	350-2500nm		
<b>Spectral Resolution</b>	2.7nm @ 700nm	5.5nm @ 1500nm	5.8nm @ 2100nm
<b>Spectral Sampling Bandwidth (nm)</b>	Data output in 1nm increments; 2151 channels reported		
<b>Detectors</b>	1024-element UV-enhanced Si Array 512-element TE-cooled InGaAs Array 512-element extended TE-cooled InGaAs Array		
<b>Calibration</b>	Spectral and radiometric calibration for radiance/irradiance measurements using NIST traceable sources.		
<b>Noise Equivalence Radiance</b> W/cm <sup>2</sup> /nm/sr (1.2m fiber optic)	0.3x10 <sup>-9</sup> @ 400nm	0.1x10 <sup>-9</sup> @ 1500nm	2.5x10 <sup>-9</sup> @ 2100nm
<b>Software Included</b>	DARWin™ Data Acquisition		
<b>Power</b>	14.4v   28w		
<b>Dimensions</b>	317.5 x 226.1 x 86.4 (mm) 12.5 x 8.9 x 3.4 (in)		
<b>Weight</b>	4.5kg   9.9lbs (without internal battery) 5kg   11 lbs (with internal battery)		
<b>Interface</b>	USB, Wireless Connection		
<b>Minimum Scan Speed</b>	100ms		
<b>Wavelength Reproducibility</b>	0.1nm		
<b>Wavelength Accuracy (nm)</b>	±0.5Bandwidth		
<b>Automatic Data</b>	Data Optimization   One Touch Operation   Automatic Exposure   Detector Integration   Dark Current Correction		
<b>Input</b>	1.5 m fiber optic (25° field of view); optional fore optics and optional longer fiber optic cables available		
<b>Operational temperature range (°C)</b>	0 to 40 degrees		
<b>Maximum Radiance</b>	VNIR 2x Solar   SWIR 10x Solar		

The NaturaSpec Plus not only brings the highest quality of spectral measurements to the field, but also facilitates the work of remote sensing scientists by eliminating errors associated with targeting and field of view calculations. It also reduces the time required for field campaigns by automatically recording important meta data such as distance to target, field of view, and GPS coordinates.