

SPECTRAL EVOLUTION

Validating WorldView-3 Data

WorldView-3 is the first commercial satellite to offer eight band VNIR imagery and eight band SWIR imagery. The addition of SWIR bands can provide significant data on soil conditions and vegetation health for research and precision agriculture. Validating WorldView-3 data is essential for creating a true understanding of the remote sensing data acquired. WorldView-3 offers 8 multispectral bands from 400-1040nm and 8 SWIR bands from 1195-2365nm.



The SPECTRAL EVOLUTION SR-6500 ultra-high resolution portable spectroradiometer.

Validation can be undertaken with an NIR field spectroradiometer such as the SR-6500, SR-8800, RS-5400, PSR+ and RS-3500 from Spectral Evolution. These instruments cover a full range from 350-2500 nanometers, delivering high resolution and sensitivity in lightweight, rugged configurations. Specifications include:

	SR-6500	RS-5400	SR-8800	PSR+	RS-3500
Spectral Range	350-2500nm	350-2500nm	350-2500nm	350-2500nm	350-2500nm
Spectral Resolution	1.5nm @ 700nm	2.7nm @ 700nm	2.8nm @ 700nm	2.8nm @ 700nm	2.8nm @ 700nm
	3.0nm @ 1500nm	5.5nm @ 1500nm	8nm @ 1500nm	8nm @ 1500nm	8nm @ 1500nm
	3.8nm @ 2100nm	5.8nm @ 2100nm	6nm @ 2100nm	6nm @ 2100nm	6nm @ 2100nm
Si Photodiode Detector	1024 element TE-cooled Si array (350-1000nm)	1024 element enhanced Si array (350-1000nm)	521 element Si array (3250-1000nm)	512 element Si array (350-1000nm)	512 element Si array (350-1000nm)
InGaAs Photodiode Detectors (TE-cooled)	512 element TE-cooled InGaAs array (1000-1600nm)	512 element TE-cooled InGaAs array (1000-1600nm)	256 element extended wavelength array (1000-1900nm)	256 element extended wavelength array (1000-1900nm)	256 element extended wavelength array (1000-1900nm)
	512 element TE-cooled extended InGaAs array (1600-2500nm)	512 element TE-cooled extended InGaAs array (1600-2500nm)	256 element extended wavelength array (1900-2500nm)	256 element extended wavelength array (1900-2500nm)	256 element extended wavelength array (1900-2500nm)
Sensitivity Noise Equivalence Radiance (NER) (W/cm²/nm/sr)	0.8x10 ⁻⁹ @ 400nm 0.3x10 ⁻⁹ @ 1500nm 5.8x10 ⁻⁹ @ 2100nm	0.3x10 ⁻⁹ @ 400nm 0.1x10 ⁻⁹ @ 1500nm 2.5x10 ⁻⁹ @ 2100nm	0.8x10 ⁻⁹ @ 400nm 1.2x10 ⁻⁹ @ 1500nm 1.8x10 ⁻⁹ @ 2100nm	0.5x10 ⁻⁹ @ 400nm 0.8x10 ⁻⁹ @ 1500nm 1.0x10 ⁻⁹ @ 2100nm	0.8x10 ⁻⁹ @ 400nm 1.2x10 ⁻⁹ @ 1500nm 1.8x10 ⁻⁹ @ 2100nm

These instruments include our DARWin SP Data Acquisition software for controlling the instrument. DARWin automatically saves all your data and spectra as ASCII files for use with other analysis software including chemometrics software. For mineral identification, our optional EZ-ID software offers matching to three mineral spectral libraries with over 1000 minerals and 2600 spectra as well as the ability to build your own library with our Custom Library Builder software module.

Contact us today for more information

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