

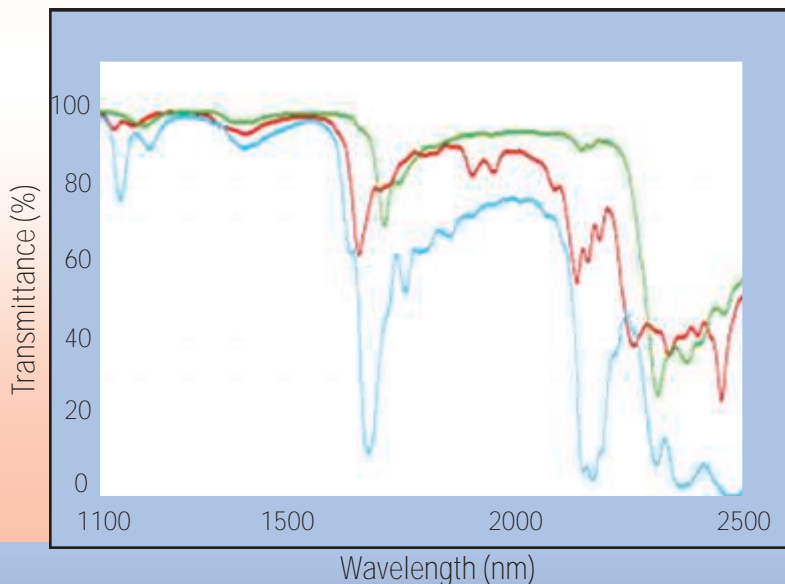
# spectral evolution

SM Series Si / InGaAs Multiple Array  
UV-VIS-NIR Full Range Spectrometers

Lightweight, convenient and easy to move from project to project- while offering the performance of a full featured unit including:

## Typical Applications:

- ▶ Light Source Measurement
- ▶ Process Control
- ▶ Raw Material Identification
- ▶ Color Measurement



## Material QC and Process Control

*SPECTRAL EVOLUTION Spectrometers are ideal for one-touch full-range spectroscopic analysis of samples. Transreflectance of three different plastic films were measured using the SPECTRAL EVOLUTION SM-3500 with its included 4° lens foreoptic. Each scan takes less than 1 second. Scans can either be processed immediately using a computer or handheld PDA.*

- ▶ State-of-the-art linear arrays for low noise & high sensitivity
- ▶ Fast, one-touch full spectrum UV-VIS-NIR measurements
- ▶ Fixed optics & gratings for improved reliability
- ▶ Industry standard SMA fiber optic connections for easy interchangeability
- ▶ Integral dark shutter for convenient, accurate scans
- ▶ Bluetooth interface for wireless, remote sensing
- ▶ Software for both Windows-based laptops and Bluetooth-compatible PDAs for maximum flexibility
- ▶ Customizable with many different options- Fiber optics, integrating spheres and more...



*SM-3500 with included foreoptic , optional integrating sphere and fiber optic & right angle diffuser*



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## Technical Specifications

	SM-3500	SM-2500	SM-1900	SM-1600
Spectral Range	350-2500nm	350-2500nm	350-1900nm	300-1700nm
Spectral Resolution	3.5nm (350-1000nm) 10nm @ 1500nm 7nm @2100nm	3.5nm (350-1000nm) 22nm @ 1500nm 22nm @ 2100nm	3.5nm (350-1000nm) 10nm (1000-1900nm)	5nm (300-1000nm) 10nm (1000-1700nm)
Spectral Sampling Bandwidth	1.5nm (350-1000nm) 3.8nm @ 1500nm 2.5nm @2100nm	1.5nm (350-1000nm) 6nm @ 1500nm 6nm @ 2100nm	1.5nm (350-1000nm) 3.8nm @ 1500nm	1.5nm (300-1000nm) 3nm @ 1500nm
Si Detectors	512 element Si array (350-1000nm)	512 element Si array (350-1000nm)	512 element Si array (350-1000nm)	512 element Si array (300-1000nm)
InGaAs Detectors	256 element extended wavelength array (970-1910nm) 256 element extended wavelength array (1900-2500nm)	256 element extended wavelength array (970-2500nm)	256 element extended wavelength array (970-1900nm)	256 element extended wavelength array (970-1700nm)
FOV Options	4°, 8°, or 14° lens, 23° fiber optic, diffuser, integrating sphere	4°, 8°, or 14° lens, 23° fiber optic, diffuser, integrating sphere	4°, 8°, or 14° lens, 23° fiber optic, diffuser, integrating sphere	4°, 8°, or 14° lens, 23° fiber optic, diffuser, integrating sphere
Stray light	0.10%	0.10%	0.10%	0.10%
Minimum Scan Speed	100 milliseconds	100 milliseconds	100 milliseconds	100 milliseconds
Wavelength Reproducibility	0.1nm	0.1nm	0.1nm	0.1nm
Wavelength Accuracy	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth
Communications interface	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth
Size	<b>8.5" x 12" x 3.5"</b>	<b>8.5" x 12" x 3.5"</b>	<b>8.5" x 12" x 3.5"</b>	<b>8.5" x 12" x 3.5"</b>
Weight	less than 8 pounds	less than 8 pounds	less than 8 pounds	less than 8 pounds
Software included	DARWin SP Data Acquisition	DARWin SP Data Acquisition	DARWin SP Data Acquisition	DARWin SP Data Acquisition



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