

EagleEye™ UV-Vis-NIR Spectrometer

A high-sensitivity UV-Vis-NIR Spectrometer with a TEC-cooled CCD for precise, stable measurements

The EagleEye™ (EE) Series spectrometers deliver high-resolution spectral performance using a thermoelectrically cooled (TEC) back-thinned CCD sensor and a high-performance 32-bit RISC controller. An optimized Czerny–Turner optical design ensures exceptional wavelength accuracy, spectral resolution, and long-term measurement stability. Engineered for reliability in demanding environments, EagleEye™ maintains consistent performance under thermal, vibration, and shock variations, minimizing wavelength shift and resolution drift. Its compact, robust design makes it well suited for long-term monitoring, research, and OEM integration across UV–Vis and NIR applications.



APPLICATIONS

- UV-Vis-NIR spectroscopy and precision optical analysis
- Fluorescence spectroscopy and light source characterization
- Semiconductor and thin-film inspection
- Material identification and reflectance analysis
- Process monitoring and quality control
- OEM integration

KEY PERFORMANCE

Wavelength Range: 180-1100 nm

Optical Resolution: 0.2 – 10.5 nm
(model dependent)

Signal-to-Noise Ratio: 500

Integration Time: 5 ms – 65 s

Stray Light: <0.45 %

Thermal Stability: <0.015- <0.04 nm / °C
(model dependent)

Interface: USB, Ethernet

EagleEye™ Specifications

	EE2113	EE2063
Wavelength Range	500 nm – 1100 nm	180 nm – 1100 nm
Sensor Type	NIR Enhanced Back-Thinned TEC linear sensor	UV Enhanced low-noise Back-Thinned TEC linear sensor
Pixels	2048	
SNR	500	
Dynamic Range	5000	4000
Stray Light	<0.45%	
Thermal Stability	<0.015 nm / °C	<0.04 nm / °C
Dark Noise (avg)	13	17
A/D Converter	16 - bits	
Integration Time	5 ms – 65 sec, depending on sensors	
Operating Temperature	0°C to +50°C	
Grating	15 grating options, spectral range from UV to NIR	
Dimensions / Weight	130 (L) × 96 (W) × 57.65 (H) mm	