MagNa™ Vis-NIR High-Resolution Spectrometer

A high-resolution, TE-cooled spectrometer designed for visible and near-infrared measurements

The MagNa™ (MN) and MagNa-NIR™ (MN-NIR) Series spectrometers are high-resolution, thermoelectrically cooled instruments designed for precise spectral measurements across the visible and near-infrared regions. Featuring a TRT-Czerny–Turner optical design with precision reflection gratings, the MagNa Series delivers high resolution, low stray light (less than 0.2%), and excellent wavelength stability (less than 0.002 nm/°C). Available with CCD (VIS) or InGaAs (NIR) sensors, the spectrometers provide high dynamic range and signal-to-noise performance. Their compact, rugged design supports laboratory, industrial, and OEM integration.



APPLICATIONS

- Chlorophyll fluorescence
- Laser diode testing
- VCSEL testing
- LED testing
- Laboratory and OEM integration

KEY PERFORMANCE

Wavelength Range: 400 – 1700 nm (model dependent)
Optical Resolution: 0.31 - 0.35 nm (VIS); 0.2 - 0.4 nm (NIR, 10 µm slit)
Signal-to-Noise Ratio: Up to 4900 (model dependent)
Dynamic Range: Up to 10,000 (model dependent)
Sensor: TE-cooled CCD (VIS) / InGaAs (NIR)
Integration Time: 6 µs – 65 s (model dependent)
Stray Light: <0.2%
Interface: USB 2.0 High-Speed; optional Ethernet (MN6870ES)

MagNa™ Specifications

	MN1060S	MN1110S	MN2870S	MN6870ES
Wavelength Range	400 – 1000 nm		900 – 1700 nm	
Sensor Type	Back-thinned CCD		TE-cooled InGaAs	
Pixels	2048		512	
SNR	500		2700 - 4900	
Dynamic Range	5000		7700 – 10,000	7300 - 9300
A/D Converter	16 bits			
Stray Light	<0.2%			
Thermal Stability	<0.002 nm/°C			
Integration Time	5 ms - 65 s		0.1 ms - 24 s	6 µs - 24 s
Operating Temperature	0°C to +50°C			
Dimensions / Weight	199 (L) × 170 (W) × 64.5 (H) mm			