



Technical Specifications



HYPER-NOVA

High Performance Spectrometer Series

The **HYPER-Nova** is one of our first **StellarElite** spectrometers and offers high-performance spectroscopy in a compact form factor.

HYPER-Nova spectrometers use a Low Dark Current (LDC) technology to provide lower background noise than is possible with traditional front/back-illuminated detectors. HYPER-Nova's CCD detector is vacuum sealed and cooled to -60 °C with peak quantum efficiencies up to 95%! The HYPER-Nova comes in a variety of wavelength configurations including specialty configurations for Raman spectroscopy and custom low-light applications.



Features and Benefits:

- Low Dark Current (LDC) Technology
- Deep-Cooled CCD Detector
- Low Background Noise

Model Ranges and Resolutions

MODEL	RANGE	RESOLUTION
HYPER-Nova-HR-532	200-3,100 cm ⁻¹	5 cm ⁻¹
HYPER-Nova-ER-532	200-5,250 cm ⁻¹	9 cm ⁻¹
HYPER-Nova-785	200-2,750 cm ⁻¹	4 cm ⁻¹
HYPER-Nova-UVIS	300-1100nm	1 nm

TECHNICAL SPECIFICATIONS

Optical Parameters:	Detector and Electronics:	Physical, Software and Interface:
Resolution: Model Dependent	Detector Type: LDC CCD - Front (FI) or Back-Illuminated (BI)	Dimensions : 10 x 9 x 6"
Spectral Range: Model Dependent	Active Pixels: FI = 1650 X 200 BI = 2000 X 256	Operating System: Windows, Mac OS, and Linux (64 bit)
Diffraction Grating: 1200 g/mm with gold surface	Pixel Size: FI= 16 x 16 um BI = 15 X 15 um	Interface: USB
Stray Light: <0.05%	Active Pixel Well Depth: FI = 120,000 e- BI = 150,000 e-	Software: All StellarNet Software
Optical Input: SMA-905	Quantum Efficiency (max) : FI = ~68% BI = ~95%	Input: 12VDC
All models include interchangeable slit upgrade	Signal-to-Noise : >3000:1 at long exposures	Weight: 9lbs