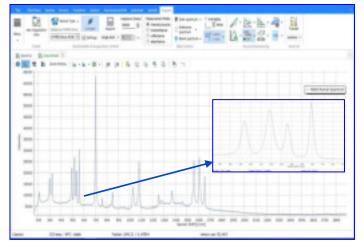


Technical Specification Sheet **MINI RUGGED SPECTROMETER SYSTEMS** 

A Universe of Spectrometer Systems

## HYPER-Nova High Performance Spectrometer Series

New HYPER-Nova spectrometers offer high performance spectroscopy measurements in a compact form factor. HYPER-Nova spectrometers use a low dark current depletion technology (LDC) to provide lower background noise than is possible with traditional front/backilluminated technologies. 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.



HYPER-Nova Spectrometer configured for 785nm Raman measuring our Maltol Standard Sample. Zooming in on one of the characteristic quadruplets shows the amazing low noise characteristics of this new spectrometer system

## **HYPER-Nova Standard Models**

HYPER-Nova-532	200-3500cm-1
HYPER-Nova-785	200-2750cm-1
HYPER-Nova-UVIS	300-1100nm
Custom	Contactus@StellarNet.us





New HYPER-Nova back thinned CCD spectrometers provide unmatched noise reduction in a compact system

- Bridging the performance gap between high-end and low cost modular spectrometers
- Low noise, back-illuminated, & LDC CCD
- Deep depletion offers 10x lower dark current than traditional back illuminated spectrometers

## Applications

The HYPER-Nova was designed out of necessity to bridge the gap between research lab systems costing > \$100,000 dollars and low cost compact systems. HYPER-Nova is ideal for use with low signal Raman spectroscopy such as those from carbon and biomolecules as well as low intensity signals from fluorescence microscopy.

StellarNet Spectroscopy Pro-tools Software operates the HYPER-Nova spectrometer line with many advanced features:

- Advanced Baseline Correction
  - Spectral Pre-processing (SNR & MSC)
- Spike removal
- Peak Labeling & Advanced Display

Specifications	HYPER-Nova Spectrometers		Starting at \$25,000
Spectrometer:	HYPER-Nova	System Dimensions:	10 x 9 x 6"
Wavelength Range:	532 & 785 Raman; or wide band	Detector Cooling:	-60 deg C
Optical resolution:	4cm-1 ; 1nm	Spectrometer Interface:	USB2
Detector type:	Low Dark Current CCD	PC Specs:	Win7-10, 32 or 64-bit
Active pixels:	2000 x 256	Software included:	Spectroscopy Pro-tools
Pixel size:	15x15um		
Integration time:	1ms-8 minutes		

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