



Hornet Spectrometer

Compact, < 30pm resolution in the Vis and NIR

The Hornet series of spectrometers are based on LightMachinery's patented Fluid Jet Polishing technology. Designed for characterizing laser spectra, the Hornet spectrometer from LightMachinery is capable of better than **30 picometer resolution**. The Hornet Spectrometer achieves the resolution of large gratings spectrometers while covering a larger wavelength range. Simple PC based software allows the user to review spectra in real time and save or export for more analysis. Labview drivers enable the Hornet spectrometer to be integrated into automated experimental setups.

Features

- Simple to use
- Sub 30pm picometer resolution
- Fiber optic input
- Quick data acquisition and export
- Simple USB interface
- LabView Drivers
- No moving parts (single shot laser spectrum analysis)

Benefits

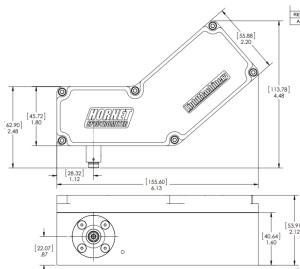
- Range - resolution ratio up to 10,000
- Fast
- Ultra-Compact
- Can measure spectra from cw and pulsed sources
- Fast real time measurements
- Ultra-reliable
- LightMachinery's legendary customer support

Applications

- Light source characterization
 - Lasers
 - Diode Lasers
 - Super luminescent diodes
- Monitoring laser modes in real time
- Passive components (Filters, Etalons, Fiber Bragg gratings) characterization to the 25pm level
- Checking the spectral / mode purity of lasers
- Classic undergraduate and graduate experiments

Specifications

- Resolution: sub 20pm at 532nm (resolving power > 25,000)
- Accuracy: < 200pm following calibration, an external calibration source is required
- Dynamic Range: 100:1 to 500:1 in a single shot measurement, up to 50dB with exposure bracketing
- Wavelength range: Visible to near IR (260nm to 1080nm*)
- Simultaneous range / resolution: >10,000 at 532nm
- Acquisition and processing speed: > 10 Hz



Part Number	Spectral Region	Total Range (nm) with manual grating rotation	Simultaneous Range (nm) without grating rotation	Resolution (pm)	Resolution (1/cm)
HN-11457	UV	250 - 320	50	<15	1.7
HN-11458	UV	280 - 360	80	<15	1.7
HN-9340	UV	fixed grating	350 - 450	<25	1.5
HN-9332	VIS	fixed grating	425 - 700	<30	0.9
HN-8989-1	VIS	400 - 500	15	1.0	0.05
HN-8989-2	VIS	500 - 600	15	1.0	0.03
HN-8989-2e	VIS	525 - 640	15	1.0	0.03
HN-8988*	VIS	500 - 550	15	15	0.55
HN-8989-3	VIS	600 - 700	15	1.0	0.02
HN-9353	NIR	fixed grating	700 - 1050	<30	0.4
HN-8995-1	NIR	700 - 900	25	2.0	0.03
HN-8991-3	NIR	800 - 1000	20	2.0	0.02
HN-8995-2	NIR	900 - 1100	20	2.0	0.02
HN-9354	1um Lasers	1010nm - 1080	fixed grating	10	0.1
HN-9352	Visible & IR	YAG, (532 and 1064)+/-10	fixed grating	15	0.1