OMS LASERPOINT LP01

LP01 Specifications

Velocity Range	5 micrometers/sec – 800 mm/sec
Low Range	5 micrometers/sec – 100 mm/sec
High Range	100 micrometers/sec – 800 mm/sec
Typical Calibration Settings	LOW: 1 Volt = 5 mm/s HIGH: 1 Volt = 100mm/sec
Frequency Range	0.1 Hz to 20 kHz*
Noise Floor	LOW: < 5 micrometers/sec** HIGH: < 100 micrometers/sec
Working Distance	0 to 5 meters
Selectable Low Pass Filters	1, 2, 5, 10, 20 kHz
Power Requirements	110-220 Volts at 50-60 Hz
Laser (Measurement)	780 nm, < 20 mW, Class 3B
Laser (Pointing)	650 nm, < 1 mW, Class 2
Laser Head Dimensions	9.4" x 4.5" x 3.0" (24.0 x 11.4 x 7.6 cm)
Laser Head Weight	3.1 lbs (1.4 kg)
Control Box Dimensions	11.8" x 8.7" x 2.4" (30 x 22 x 6 cm)
Control Box Weight	8.6 lbs (3.9 kg)
Temperature Range	3 to 45° C

* Frequency Ranges up to 80 kHz are available. Please contact OMS for more information.

**The Noise Floor is defined as the average value of the velocity vs. frequency graph between 0 and 20 kHz for one second of data, on a white target at a distance of 1 meter.
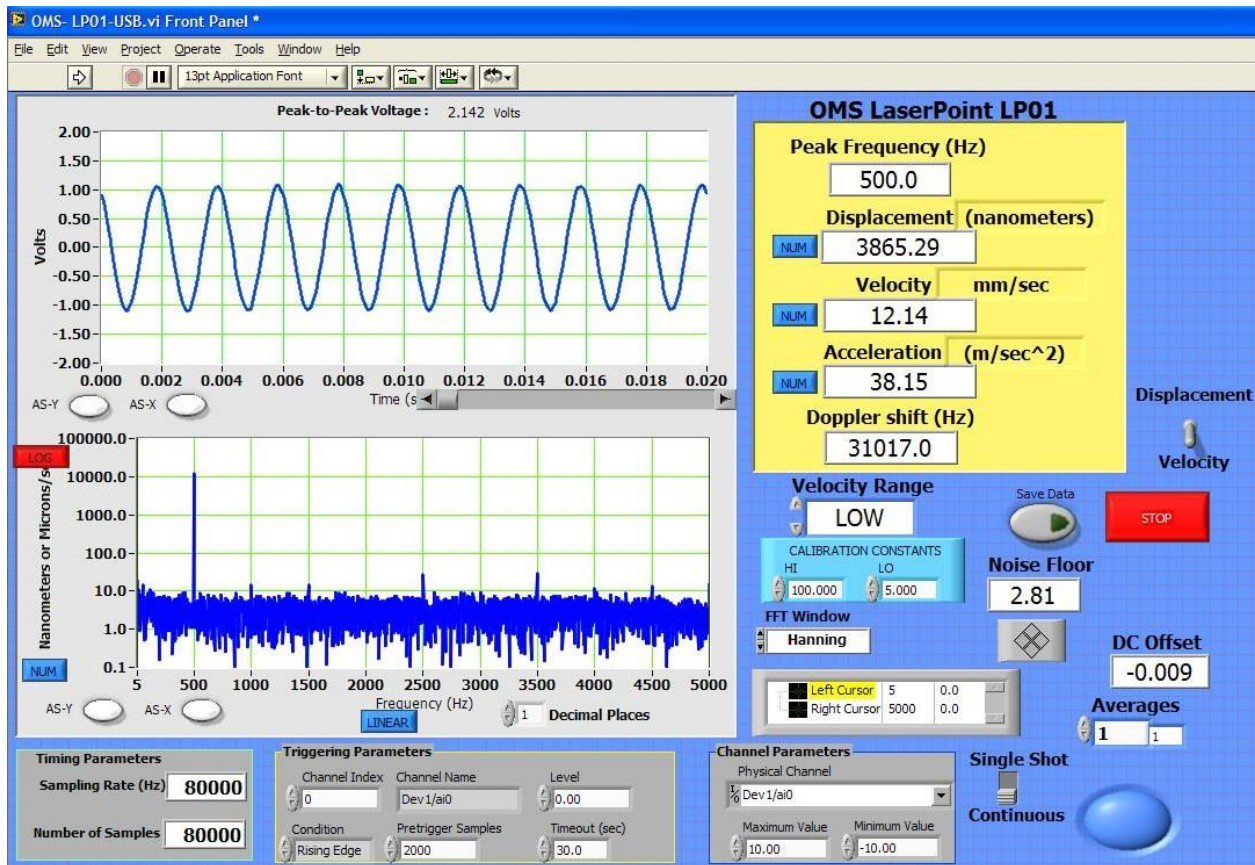
DATA ACQUISITION HARDWARE/SOFTWARE

National Instruments Data Acquisition Hardware with Custom OMS Software is available to use with the LaserPoint LP01. The standard configuration is a 100 kS/s, 16-bit, USB data acquisition module with 4 simultaneous sampling channels. A software executable is available to acquire, display, and save the analog voltage output from the LP01, and to convert the voltage input to units of velocity, acceleration, or displacement.

Hardware/Software Specifications

Sampling Rate	Up to 100 kS/s
Sampling Resolution	16-bit
Number of Channels	4
Software Features	Display Time Domain Data and Frequency Spectrum
	Determine Peak Frequency and Velocity
	Compute Displacement and Acceleration Values
	Set Trigger Levels
	Save and Export Data into a Spreadsheet Compatible Format