

NIR Laser Spectrometer

SM241



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SP SPECTRAL PRODUCTS



SM241

NIR Laser Spectrometer

Inexpensive alternative to Germanium or InGaAs systems

Allows spectral measurements between 900nm and 1650nm

Compact system, can be handheld or securely mounted

Flexible option input direct to slit or via fiber

Support up to 8 multi-channel configuration



The Choice for Spectral NIR Laser Applications

The SM241 is a compact CCD based Spectrometer designed for NIR laser applications. Spectral Products' IR up-conversion phosphor CCD coating breaks the standard Silicon-based CCD detectors array sensitivity barrier of 1100nm to allow spectral measurements up to 1650nm. This technology makes the SM241 a lower cost alternative to Germanium or InGaAs systems. The SM241 optical bench includes oversized gold plated mirrors and gratings to accommodate NIR light collection and analysis. Maximum spectral coverage with this spectrometer is 900 nm to 1700 nm (reduced coverage window size within 900-1650nm will increase spectral resolution and light sensitivity). But although the SM241 can measure up to 1650nm, due to its low sensitivity, it is limited only to use in the applications measuring very narrow band-width and strong lights like lasers in this NIR range. Standard interfaces include a USB 2.0 interface and a PCI card interface with a 16-bit extended dynamic range. Software support includes a SDK and DLLs for dedicated applications development and our SM32Pro windows based spectral acquisition and analysis software. Both standard and legacy interface designs provide support for advanced acquisition programming and external triggering.

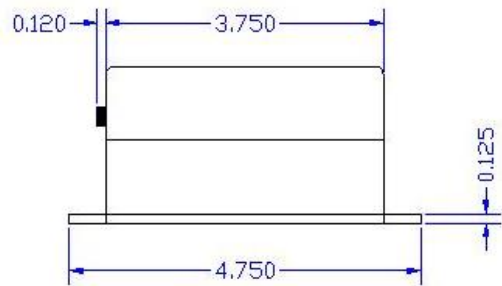
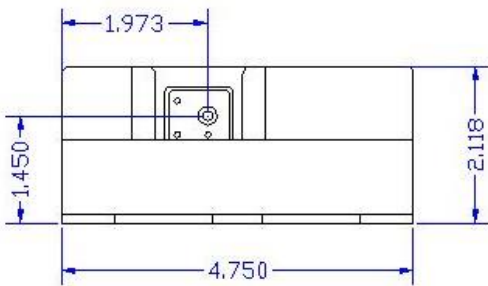
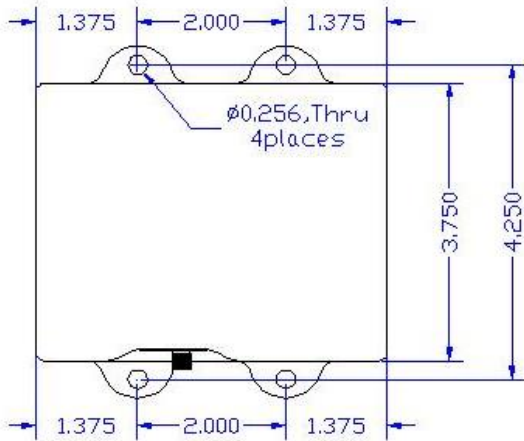
Specifications :

Physical Dimension	
Dimensions	3.75" X 4.25" X 2.12" (121mm x 121m x 54mm)
Weight	1.5lbs (0.7kg)
Fiber Optic Connector	SMA905 N.A.=0.22 Optical Fiber Input
Detector	
Detector	Sony ILX511 (IR Enhancing Coated)
Cooling	None
Windows Material	Glass
Spectral Response Range	900 - 1650nm
Pixels	2048(Effective)
Pixel Size	14um X 200um
Well Depth	62,500 e-
Optical Specification	
Wavelength Range	900 - 1650nm
Optical Resolution	<2nm with 10um slit
Dark Noise RMS	<50 RMS counts @35msec exposure time
Signal to Noise Ratio	250 : 1
Stray Light	<0.1% AVG.
Filter	None
Electrical Specification	
ADC resolution	16bit (0-65535)
Minimum Integration Time	1msec
Interface	USB 1.1/2.0 Compatible
Power Input	No external power supply
Computer	
Operating System	Windows XP/VISTA/Win7/Win8.1/Win10 (32/64bit)
Software	SM32Pro software included
Software Development Kit	Visual C++ DLL /LabVIEW VI SDK



Case Dimension :

Spectrometer SM241



Ordering Information : Please indicate product number plus description when ordering
SM241 NIR Laser Spectrometer