

*The SPM-001-NIR1700S / NIR2500W are High resolution optical bench spectrometers now available with an InGaAs linear arrays to extend its spectral range up to 2500nm.*



### Description:

The SPM-001-NIR1700S / NIR 2500W optical bench is available with a 140 mm focal length for high resolution applications. It uses a proprietary optical design to achieve a higher resolution than other spectrometers of the same size on the market. Our spectrometers are the only ones equipped with an internal DSP chip. This DSP chip is capable of handling complex signal processing tasks. It also boasts powerful software based on Labview which can be easily integrated into existing software using one of our development kits.

The SPM-001-NIR1700S / NIR2500W both work extremely well with the SPL family of light sources and other accessories available at Photon Control.

### Applications:

- Mineral Identification
- Process Automation Technology (PAT)
- Petrochemical analysis
- Laser characterization and tuning
- Thin film thickness measurement
- Moisture measurement in wood fiber
- Reflectance, Transmission, Absorption
- Cellulose analysis
- Soil analysis
- Pharmaceutical industry
- Chemical Analysis
- Alcohol content analysis
- Sensors

Contact us for more details.

### Technical Specifications

Product Model:	SPM-001-NIR1700S	SPM-001-NIR-2500W
<b>Performance Specifications</b>		
Spectral Range (nm)	900-1700	1250-2500
Detector	Hammamtsu G9204-512S: One stage cooled InGaAs linear array	Hammamtsu G9208-512W: Two stage cooled InGaAs linear array
Resolution (FWHM) (nm) 1.0/1.0 (center/outer spectral range)	3.5/5	5/8
Fiber Input	SMA	SMA
Focal Length (mm)	140	140
Order Blocking Filters	Visible Block	Visible Block
A/D Resolution	16-bits	16-bits
Pixels	512	512
Integration Time Range	10 microseconds to 10 seconds	10 microseconds to 10 seconds
Triggering	Hardware trigger	Hardware trigger
Maximum Refresh Rate (Hz)	50	50

### Operating Specifications

Temperature (° C)	+10 to 40	+10 to 40
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### Electrical Specifications

Interface	USB 2.0 High Speed at 480 mbps	USB 2.0 High Speed at 480 mbps
Power Requirements	10-30 VDC, 600 mA Max @ 12 VDC	10-30 VDC, 600 mA Max @ 12 VDC

### Physical Specifications

Dimensions (mm)	244 x 90 x 53.4	244 x 90 x 53.4
Weight (g)	475	475
Slits (µm)	25	25

### Product Options and Accessories

Fiber Patch cords	SMA Connectors	100 µm core	VIS / NIR
	SMA Connectors	200 µm core	VIS / NIR
	SMA Connectors	400 µm core	VIS / NIR (Standard)
	SMA Connectors	600 µm core	VIS / NIR
Slit Width (micron)	other slit sizes such as 5, 10, 50, 75 and 100 micron are available upon request		
Fiber Input Receptacle	FC receptacle available upon request		

Note: All spectrometers are shipped with an optical fiber patch cord, USB cable, user manual and an external power adapter.

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WARRANTY: All Photon Control Spectrometer Products come with a 1-year warranty. Some limitations apply, please contact us for more details.

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