



Photon Control

The SPM-002 is the most versatile spectrometer in the Photon Control product line. It is now available with a InGaAs CCD detector to extend its spectral range up to 1700nm. 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 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-002 works very well with the SPL family of light sources and other accessories available at Photon Control. Contact us for more details.

Other Highlights:

- compact size and 512 pixels for high resolution
- spectral range of 900-1700nm
- feature rich software interface including data logging and beam profiling which can be user integrated using Software Development Kits for Labview, Visual C++ and Visual Basic
- 16-bit A/D converter

SPM-002-NIR1700 SPECTROMETER



PRODUCT MODEL**SPM-002-NIR1700****PERFORMANCE SPECIFICATIONS**

Spectral Range (nm)	900-1700
Detector	Hamamatsu G9204-512D InGaAs linear array
Resolution (FWHM) (nm)	< 3
Fiber Input	SMA
Focal Length (mm)	70
Order Blocking Filters	Yes
A/D Resolution	16-bits
CCD Pixels	512
Integration Time Range	10 microseconds to 65 seconds
Triggering	Hardware trigger
Maximum Refresh Rate (Hz)	50

OPERATING SPECIFICATIONS

Temperature (°C)	-10 to +55
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ELECTRICAL SPECIFICATIONS

Interface	USB 2.0 High Speed at 480 Mbps
Power Requirements	10-30 VDC, 300 mA Max @ 12 VDC

PHYSICAL SPECIFICATIONS

Dimensions (mm)	101.5 x 90 x 53.4
Weight (g)	475
Slits (um)	25

PRODUCT OPTIONS AND ACCESSORIES

Fiber Patchcords	SMA 905 connectors SMA 905 connectors SMA 905 connectors SMA 905 connectors	100 um core 200 um core 400 um core 600 um core	VIS/NIR VIS/NIR (Standard) VIS/NIR 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 or ST receptacles available upon request		

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

PRODUCT APPLICATIONS

- Laser characterization and tuning
- Petrochemical analysis
- Pharmaceutical industry
- Alcohol content analysis
- Moisture measurement in wood fiber
- Reflectance, Transmission, Absorption
- Cellulose analysis
- Soil analysis
- Optical inspection
- Chemical analysis
- Thin film thickness measurement
- Sensors

PHOTON CONTROL Inc.

Head Office, Sales & Manufacturing:

PHOTON CONTROL Inc.
8363 Lougheed Hwy
Burnaby, BC Canada
V5A 1X3

Phone: (604) 422-8861
Fax: (604) 422-8409

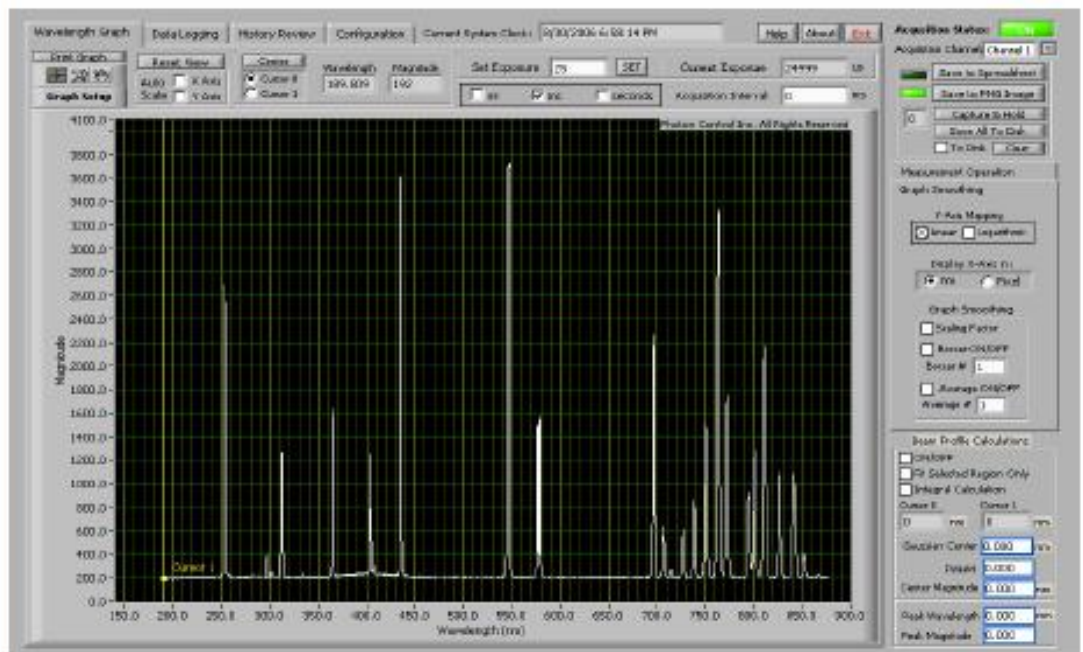
E-mail: info@photon-control.com
Website: www.photon-control.com

SOFTWARE SPECIFICATIONS - SPM-002

Features

- Convenient spectrum display controls such as zoom, pan and cursors
- Linear and logarithmic scaling
- Dark background subtraction
- Transmittance and Reflectance measurement
- Boxcar and time based pixel averaging
- Beam profile calculators such as Gaussian center and FWHM (Full Width Half Maximum)
- Extensive data logging control
- History review panel with the ability to view an entire logging session and zoom in on a particular spectrum
- Post experiment analysis available in history review panel
- Convenient snapshot to spreadsheet and png file controls
- Capture and hold function
- Access up to 5 spectrometers at a time

Photon Control Spectrometer User Interface Main Panel



Software Development Kits (Windows)

- LabView
- Visual C++ and Visual Basic

Interface Software Platforms

- Windows 2000/XP

ISO 9001:2000



1050706

SPECIFICATIONS ARE SUBJECT
TO CHANGE WITHOUT NOTICE

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(408) 761-0062

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