



Photon Control

The SPM-002 is the most versatile spectrometer in the Photon Control product line. 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. There is no need for an external computer to process data. It also boasts powerful software based off 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 but higher resolution than competitors
- inboard DSP saves on having to process data externally
- a variety spectral ranges between 190nm and 1090nm
- 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
- Convenient USB interface

SPM-002 SPECTROMETER



PRODUCT MODEL	SPM-002-A	SPM-002-B	SPM-002-C	SPM-002-D	SPM-002-E
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PERFORMANCE SPECIFICATIONS

Spectral Range (nm)	400-700	190-400	350-1000	200-850	200-1090
Resolution (FWHM) (nm) (center / outer spectral range)	0.4 / 0.6	0.5 / 0.7	0.4 / 1.1	0.5 / 1.5	0.8 / 2
Fiber Input	SMA	SMA	SMA	SMA	SMA
Focal Length (mm)	70	70	70	70	70
Order Blocking Filters	No	No	Yes	Yes	Yes
A/D Resolution	12-bits	12-bits	12-bits	12-bits	12-bits
CCD Pixels	3648	3648	3648	3648	3648
Integration Time Range	10 microseconds to 65 seconds	10 microseconds to 65 seconds	10 microseconds to 65 seconds	10 microseconds to 65 seconds	10 microseconds to 65 seconds
Triggering	Hardware trigger	Hardware trigger	Hardware trigger	Hardware trigger	Hardware trigger
Maximum Refresh Rate (Hz)	20	20	20	20	20

OPERATING SPECIFICATIONS

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

Interface	USB 2.0 compatible *	USB 2.0 compatible *	USB 2.0 compatible *	USB 2.0 compatible *	USB 2.0 compatible *
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* Full Speed USB Connection at 12 Mbps

Power Requirements	10-30 VDC, 300 mA Max @ 12 VDC or USB powered	10-30 VDC, 300 mA Max @ 12 VDC or USB powered	10-30 VDC, 300 mA Max @ 12 VDC or USB powered	10-30 VDC, 300 mA Max @ 12 VDC or USB powered	10-30 VDC, 300 mA Max @ 12 VDC or USB powered
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PHYSICAL SPECIFICATIONS

Dimensions (mm)	101.5 x 90 x 53.4	101.5 x 90 x 53.4	101.5 x 90 x 53.4	101.5 x 90 x 53.4	101.5 x 90 x 53.4
Weight (g)	475	475	475	475	475
Slits (µm)	10	10	10	10	10

PRODUCT OPTIONS AND ACCESSORIES

Fiber Patchcords	SMA 905 connectors SMA 905 connectors SMA 905 connectors SMA 905 connectors	100 µm core 200 µm core 100 µm core 200 µm core	VIS/NIR VIS/NIR (Standard with -A and -C) UV/VIS UV/VIS (Standard with -B, -D and -E)
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Slit Width (micron) Other slit sizes such as 5, 25 and 50 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

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| <ul style="list-style-type: none"> • Visible spectrum/ colour monitoring • UV, Visible, NIR (Near Infrared) • Biophotonics • Transmission • Reflection • Absorption | <ul style="list-style-type: none"> • Fluorescence • Molar Concentration • Optical Inspection • Chemical Analysis • Laser/ Light Source Monitoring • Scattering |
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Head Office, Sales & Manufacturing:

Features

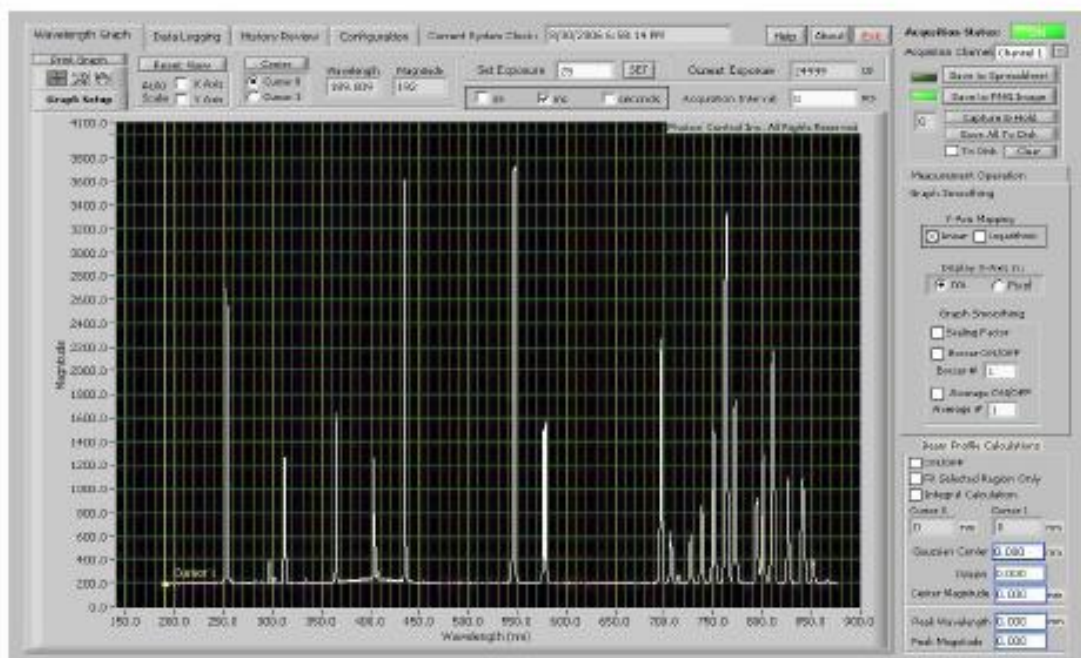
- Convenient spectrum display controls such as zoom, pan and cursors
- Linear and logarithmic scaling
- Dark background subtraction
- Transmittance and Reflectance measurement
- Boxcar and time based pixel averaging
- Beam profile calculators such as Gaussian center and FWHM (Full Width Half Maximum)
- 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

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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



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SPECIFICATIONS ARE SUBJECT
 TO CHANGE WITHOUT NOTICE

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