

The SPM-002 is the most versatile spectrometer in the Photon Control product line. It is now available with a Hamamatsu S9840 back-thinned CCD detector for very high UV sensitivity.

Description:

It also has a dynamic range of 5200:1 and 16-bit A/D converter resolution. 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 extremely well with the SPL family of light sources and other accessories available at Photon Control.

Applications:

- Plasma Monitoring
- Laser characterization and tuning
- Biophotonics
- Quantum Dot Analysis
- Thin film thickness measurement
- Reflectance, Transmission, Absorption
- Gas analysis
- Molar Concentration
- Optical Inspection
- Chemical Analysis
- Fluorescence
- Sensors

Visit photon-control.com for more details.



Features:

- *Compact size and 2048 pixels for high resolution*
- *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 2.0 High Speed Interface Visual Basic*
- *16 - bit A / D converter*

| Product Model: | SPM-002-BT | SPM-002-DT | SPM-002-ET |
|---|--|--|---|
| Performance Specifications | | | |
| Spectral Range (nm) | 190-400 | 200-850 | 200-1090 |
| Detector | Hamamatsu S9840 Back-Thinned CCD | Hamamatsu S9840 Back-Thinned CCD | Hamamatsu S9840 Back-Thinned CCD |
| Resolution (FWHM) (nm) (center / outer spectral range,10um slit) | 0.6/0.7 | 0.6/1.6 | 0.8/2 |
| Fiber Input | SMA | SMA | SMA |
| Focal Length (mm) | 70 | 70 | 70 |
| Order Blocking Filters | No | Yes | Yes |
| A/D Resolution | 16-bits | 16-bits | 16-bits |
| CCD Pixels | 2048 | 2048 | 2048 |
| Integration Time Range | 2.2 millisecondsto 10 seconds | 2.2 milliseconds to 10 seconds | 2.2 milliseconds to 10 seconds |
| Triggering | Hardware trigger | Hardware trigger | Hardware trigger |
| Maximum Refresh Rate (Hz) | 50 | 50 | 50 |
| Operating Specifications | | | |
| Temperature (° C) | -10 to +40 | -10 to +40 | -10 to +40 |
| Electrical Specifications | | | |
| Interface | USB 2.0 High Speed at 480 Mbps | USB 2.0 High Speed at 480 Mbps | USB 2.0 High Speed at 480 Mbps |
| Power Requirements | 10-30 VDC, 300 mA Max @ 12 VDC | 10-30 VDC, 300 mA Max @ 12 VDC | 10-30 VDC, 300 mA Max @ 12 VDC |
| 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 |
| Weight (g) | 475 | 475 | 475 |
| Slits (µm) | 25 | 25 | 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 | UV/VIS UV/VIS (Standard) UV/VIS UV/VIS |
| 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.

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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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