

SM520

Extreme Resolution CCD Spectrometer

- *Optical input direct to slit or via fiber .*
- *Allows higher resolution spectral measurements in up to a 700nm measurement window between 200nm and 1050nm — double the resolution of the SM200 and SM240.*
- *USB 2.0 interface with 16-bit dynamic range available!*



The Choice for Spectral Applications

The SM520 is a CCD based spectrometer that offers more than double the resolution of the SM240. This resolution is achieved using oversized (30mm x 30mm) optical-bench components. These components offer approximately 4 times the effective collimation, grating and focusing area than what is used in the

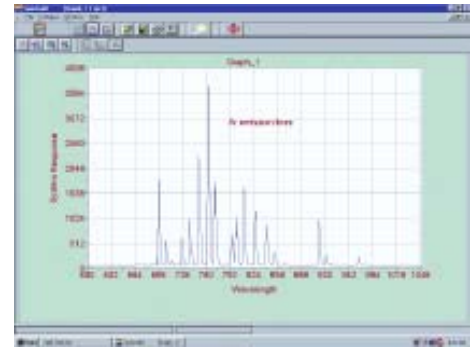
SM200 and SM240. As with all spectrometers, effective resolution increases as window size decreases. A 100nm window will have approximately .09nm resolution (as opposed to .3nm for the SM200 and SM240). A 700 nm window will have approximately .56nm resolution (as opposed to 1.12 nm for the SM200 and SM240).

Standard interfaces include a USB 2.0 interface with 16-bit extended dynamic range and a PCI card interface with 12-bit dynamic range. Custom interfaces and legacy ISA and PCMCIA interfaces are also available. 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.

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Software

- ✓ SM32Pro - Windows® 98,2000, XP based software for data acquisition and analysis.
- ✓ Transmission, reflectance, and absorbance measurements.
- ✓ Data export, zoom in and out, spectrum overlays, and many more features.
- ✓ Color analysis tools included.
- ✓ Signal average and integration time control.
- ✓ Double beam version available.
- ✓ SDK and DLLs available for easy custom software development.



Software

Specifications:

Detectors:

Sony CCD Linear Array

Number of Pixels: 2048

Sensing Pixel Size: 14µm x 200µm

Sensitivity: 1800 V/(lx•s) @ 660nm

Customer array installation available

Dimensions (inches): 7.0 h x 6.75 w x 3.0 d

Weight: 4.0 lbs.

Spectral Range: UV - 200nm to 450nm
 VIS - 380nm to 760nm
 NIR - 550nm to 1050nm
 other ranges are configurable
 from 200nm to 1050nm

Spectral Resolution: ~ 0.1nm, dependent on spectral range, slit width, and fiber diameter.

Entrance:

Fiber SMA 905 or FC fiber coupler.
 50-600µm core Ø fiber
 NA = 0.2

Slit 10, 25, 50 or 100µm

Dynamic Range: 12 bit (4096:1) or
 16 bit (65536:1)

Computer Interface:

USB 2.0 16 bit 500KHz

PCI bus NI-PCI 12 bit 200 KHz
 PCI interface board

**Call SP for other interface options,
 including PCMCIA and ISA**

Temperature Range: 15 °C to 40 °C

Software: SM32Pro

Ordering Information: Please indicate product number plus description when ordering.

SM520 USB USB interface, Spectrometer
SM520 PCI PCI interface, Spectrometer

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