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TECHNOLOGY GROUP

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Find the *Spectral Products SM240* at our website: *Click HERE*

SM240/ SM440 Handheld CCD Spectrometer

The Choice for Spectral Applications



- **New Lower Pricing!**
- Compact system, can be handheld or securely mounted
- Flexible optical input direct to slit or via fiber
- Designed from the ground up for applications
- Impact resistant housing
- High performance electronics
- Standard design allows up to 850nm measurement window between 200nm and 1050nm.
- USB 1.1 and 2.0 interface with 16-bit dynamic range available
- Support up to 8 USB multi-channel configuration
- UV enhancing coating

The SM240/SM440 is a compact CCD Spectrometer for use with a PC. Based on the SM200/SM400 optical bench design, it supports many different applications where spectral or color measurements are required, including high dynamic range applications. The SM240/SM440 can accept light directly through its built-in slit or via optical fiber. The durable aluminum housing that encloses the SM240/SM440 provides stable optical bench operation over a wide range of temperatures.

The standard sensor arrays used are the Sony ILX 511 for SM240 and the Toshiba TCD1304 for the SM440. The array driver electronics have been designed for highly sensitive yet stable operation. These arrays (in conjunction with our special UV coating process and custom order sorting filters) allow up to a 850nm measurement window located from 200nm to 1050nm (smaller measurement window sizes increase spectral resolution and light sensitivity). Standard interfaces to the SM240/SM440 include a USB 2.0 interface and a PCI card interface with 16-bit dynamic range. Our USB board can support multichannel configuration up to 8. With this multichannel configuration, a high resolution for wide range or a dual spectrometer system (one for measurement and the other for reference) is possible. Spectral Products applies new UV enhancing coating on the CCD to increase the UV sensitivity below 450nm comparing with the conventional UV coating that is widely used in CCD spectrometers. By the help of this new UV coating, the signal sensitivity below 500nm can get improved ~20-50% more in general. The black-anodized housing is available for OEM customers who are using the unit as it is with no need to install the optical bench and the electronic board separately (like SM200/SM400) in their systems. The electronic board is secured in the housing of the SM240/SM440, which is better for the electronic noise protection. Software support includes a SDK and DLLs for dedicated applications development and our SM32Pro Windows-

Spectrometers

UV-Vis-NIR Spectrometers

NIR-MIR Spectrometers

High Resolution Spectrometers

low-cost/OEM Spectrometers

Monochromators

DK480 1/2m Monochromator

DK240 1/4m Monochromator

CM: 1/8m Monochromator

DK & CM Options

Light Sources

Tungsten-Halogen Light Sources

Deuterium Light Source

Xenon Light Source

IR Emitter

based spectral acquisition and analysis software. Both standard and legacy interface designs provide support for advanced acquisition programming and external triggering.

Contact Us

Model	SM240	SM440
Detector	SONY ILX Pixels: 2048 Sensing Pixel Size: 14um x 200um Sensitivity: 200V (lx s) under 3200K uniform illumination	Toshiba TCD 1304 Pixels: 3648 Sensing Pixel Size: 8um x 200um Sensitivity: 160V (lx s) under daylight fluorescent illumination
Spectral Resolution	0.15 to 10nm depending on the slit and grating choices	
Spectral Range	200 - 1050nm	
Spectrograph f#	2.7	
Fiber Coupler	SMA 905 or FC standard	
Stray Light	< 0.1% overall	
Slit Options	5, 10, 25, 50, 100, 200, 400um	
Orders Sorting Filter	Longpass filter or linear variable filter installed per wavelength coverage	
Computer Interface	USB 1.1 / 2.0 16-bit (support up to 8 multi-channel configuration)	
Software	Windows 98/Me/2000/XP/VISTA/Win7/Win8.1/Win10 (both 32/64bit) SM32Pro & SM32Pro MX (free with spectrometer) Includes DLL libraries and SDKs for easy custom application development	
Dimensions	5.60H x 2.75W x 0.87D inches	
Weight	0.9lbs	
min. Integration Time	1ms	0.01ms
Dark Noise RMS	< 50 RMS counts in 16bit @ 35msec integration time	
Signal to Noise ratio	250 : 1	
Trigger mode	Free Run Mode External Trigger Mode	

Hybrid Light Sources

Calibration

Wavelength Tunable Light Source

Filter Wheels

AB series Automated Filter Wheels

AB series Order Sorting Filters

AB202 Double Filter Box

Accessories

Integrating Spheres

Fibers & Adapters

111 Highland Drive
Putnam, CT 06260
Mon-Fri 7:00AM - 4:00PM EST

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We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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