SM303-HRS

High Resolution TE cooled Spectrometer

Scientific-grade High Performance

Extremely Low Dark Noise and Stray Light for Spectrophotometer/ Spectroradiometer

High Signal to Noise Ratio

High Ultra-Violet Quantum Efficiency

High Speed Data Acquisition

Dark Option (Auto Shutter)



The Choice for Low Signal Level with high resolution Applications

Spectral Products is offering the new SM303-HRS TE cooled back-thinned 1024 pixel array CCD spectrometer. The SM303-HRS is ideal for UV/VIS/NIR spectrometry that requires very high signal to noise ratio and/or high dynamic range, like fluorescence, Rama, LED property testing applications. The back-thinned CCD has excellent sensitivity in UV and allows deep UV application.

The large optical bench of the SM303-HRS makes it possible to have a narrow window size and get a higher resolution, which is sometimes impossible with the regular SM303. With sacrificing the covering wavelength range, the SM303-HRS can offer about twice higher resolution than the regular SM303.

Well designed housing allows up to a 850nm measurement window from 200nm to 1050nm (smaller measurement window sizes increase spectral resolution and light sensitivity) with very low stray light. The TE cooled detector also help to measure very low light signals by reducing the noise level in long integration times. Thanks to the high dynamic range and the low noise, the SM303-HRS is also ideal for radiometric measurement applications.

Standard interface to the SM303-HRS is a USB 1.1/2.0 compatible interface with 16-bit. Software support includes a SDK and DLLs for dedicated applications development and our SM32Pro Windows-based spectral acquisition and analysis software.



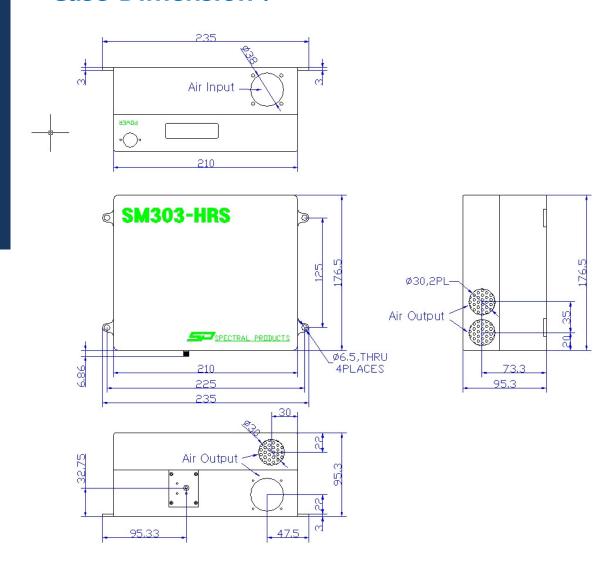


Specifications:

| Dimensions 9.25" X 6.95" X 3.75" (235mm X 177mm X 95mm) Weight 8.1lbs (3.7kg) Fiber Optic Connector SMA905 N.A.=0.22 Optical Fiber Input Detector Detector Hamamatsu S7031-1006 (TE Cooled Backthinned FFT CCD) Cooling One Stage TE(thermo-electric) Cooling(-10°C) Spectral Response Range ~200-1050nm Pixels 1024 X 64 pixels (Total) Pixel Size 24 um X 24 um Active Area 24.576 mm X 1.392 mm Full Well Capacity 300 Ke- (Vertical) 600 Ke- (Horizontal) Quantun Efficuency >90% @ 650nm Optical Specification Full Range : ~200-1050nm UV/VIS Range : ~200-800nm Visible Range: ~300-900nm other user customized range | Physical Dimension | |
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| Software SM32Pro software included | | |
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| Software Development Kit Visual C++ DLL /LabVIEW VI SDK | | |
| | Software Development Kit | Visual C++ DLL /LabVIEW VI SDK |



Case Dimension:



Ordering Information: Please indicate product number plus description when ordering **SM303-HRS** High Resolution Spectrometer

