

SM303

High Performance TE-Cooled Backthinned Spectrometer

Scientific-grade
High Performance

Extremely Low Dark Noise
and Stray Light for
Spectrophotometer/
Spectroradiometer

High Signal to Noise Ratio

High Ultra-Violet
Quantum Efficient

High Speed Data Acquisition

Dark Option (Auto Shutter)



Physical Dimension

Dimensions	173mm X 120mm X 79.8mm
Weight	2.0kg
Fiber Optic Connector	SMA905 N.A.=0.22 Optical Fiber Input

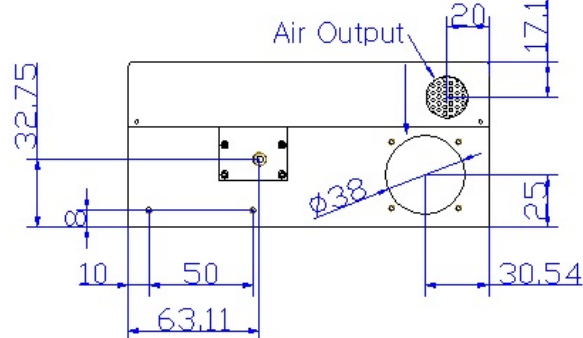
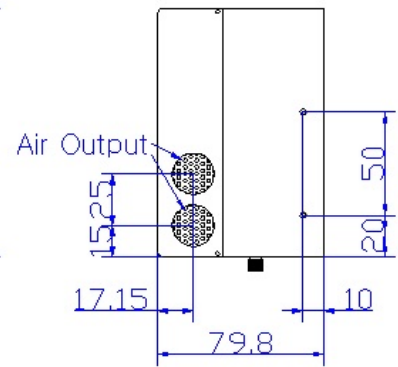
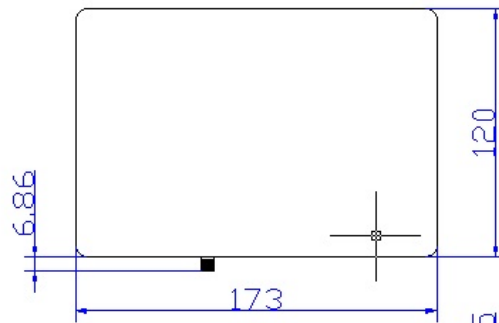
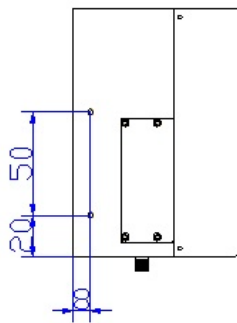
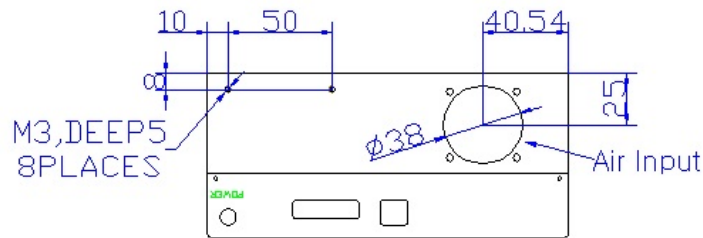
Detector

Detector	Hamamatsu S7031-1006 (TE Cooled Backthinned FFT CCD)
Cooling	One Stage TE(thermo-electric) Cooling(-10°C)
Spectral Response Range	200 ~ 1050nm
Pixels	1044 X 64 pixels (Total) 1024 X 58 pixels (Effective)
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

Wavelength Range	Full Range : 200~1050nm UV/VIS Range : 200~800nm Visible Range: 300~900nm other user customized range
Optical Resolution	0.3~7nm ,dependent on spectral range slit width, fiber diameter
Dark	Auto Shutter
Dark Noise RMS	< 2 RMS counts in 16bit @ 35msec integration time
Signal to Noise Ratio	1000 : 1

Stray Light	<0.05% AVG
Filter	Second Order Blocking Filter Installed
Electrical Specification	
ADC resolution	16bit (0~65535)
Minimum Integration Time	7msec
Interface	USB 1.1/2.0 Compatible
Trigger Mode	Free Run Mode Software Trigger Mode External Trigger Mode (9-pin connector) (TTL Edge Trigger Input / Digital Output for Monitoring)
Power Input	100~240V(47~63Hz),1.9A
Computer	
Operating System	Windows XP/VISTA/Win7(32/64bit)/Win8.1(32/64bit)
Software	SM32Pro software included
Software Development Kit	Visual C++ DLL /LabVIEW VI SDK



[Case Dimension]