

YSM-8104-07 Series High Performance Spectrometer with TE-Cooling

Description

YSM-8104-07 series high-performance spectrometer adopts Hamamatsu 1024 x 58 pixel area array back-illuminated CCD with TE-cooling. Its pixel size is 24 μ m \times 24 μ m with good scientific-grade sensitivity, especially for scientific research. Its extremely optimized low-noise circuits uses an 18-bit A/D converter, coupled with an excellent CT optical structure, which greatly improves the signal-to-noise ratio, sensitivity and thermal stability, and is suitable for Raman, fluorescence and other complex scientific work. In addition, YSM-8104-07 series adopts a replaceable slit design with changeable resolutions and sensitivity by the user himself.



Application

Weak light measurement in the range of UV-VIS

Raman

Fluorescence

One of the best Choices for research application

Features

Hamamatsu 1024 x 58 pixel area array back-illuminated CCD with TE cooling with the pixel size of 12 μ m \times 12 μ m.

Replaceable slits with changeable resolutions and sensitivity by the user himself..

SMA905 connector, easy to work with other devices through optical fiber

Selectable wavelength range and resolution.

Enhanced lens is optional to improve the sensitivity.

Automatically read peak wavelength and FWHM

Model List

Model	Wavelength Range	Sub Model	Resolution	Slit	Grating	Filter	Lens
YSM-8104-07-01	200-810nm	18S03L02F06G01	~1.5nm	25 μ m	600g/mm@400nm	F06	L02
YSM-8104-07-02	780nm-1060nm	18S03L01F08G05	~0.8nm	25 μ m	1200g/mm@850nm	F08	L01
YSM-8104-07-03	480nm-1100nm	18S03L02F05G02	~1.5nm	25 μ m	600g/mm@650nm	F05	L02
YSM-8104-07-04	530nm-830nm	18S03L01F08G20	~0.8nm	25 μ m	1200g/mm@600nm	F08	L01
YSM-8104-07-05	380nm-1000nm	18S03L02F05G02	~1.5nm	25 μ m	600g/mm@650nm	F05	L02

*Other wavelength ranges and resolutions can be customized.

*Cylinder lenses can be added to some models to increase the sensitivity.

Packing List

1EA spectrometer, 1EA USB data cable, 1EA CD with software and manual, 1EA calibration report

YSM-8104-07 Series High Performance Spectrometer with TE-Cooling

Model	YSM-8104-07
Detector	Hamamatsu area array back-thinned CCD sensor (S7031-1006s) 1024×58 Pixels Pixel Size 24μm×24μm Wavelength Response Range 200nm-1100nm
Size	190mm×120mm×66mm
Wavelength Range	200nm-950nm (Pre-configured)
Optical Resolution	~1nm (Pre-configured 25μm slit)
Signal to noise ratio	1000:1
A/D	18bit
Integration Time	8ms-3600s
Dynamic Range	100000:1
Trigger Mode	Software, hardware, synchronous
Fiber Connector	SMA905
Operating Temperature	5°C-35°C (Recommended temperature 25°C)
Communication Interface	USB2.0, RS232
Operating System	Win XP, Win 7, Win 8, Win10
Power Supply	2A, 5VDC

Quantum Efficiency Curve of CCD

