Modular Fiber Optic Spectrometer with Customizable Spectral Resolution and Sensitivity

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: ISO9001 CE
- Model Number: SR100B
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: International Shipping Package
- Delivery Time: 30-400 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 100PCS/30-40 days

Product Specification

- Spectrual Range: 200nm - 1100nm
- Effective Pixels: 2048*64
- Pixel Size: 28.672*0.896mm
- Integration Time: 4ms~900s
- Dimensions: 180mm*120mm*50mm
- Weight: 1.2kg

More Images

Our Product Introduction

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Product Description

Backlit array CCD UV enhanced High Sensitivity Modular Spectrometer

The SR100B spectrometer represents a pinnacle of technological achievement in the realm of high-performance, back-illuminated CCD sensor devices. It is particularly well-suited for a wide array of industrial, laboratory, and research applications where precision and reliability are paramount. At the heart of this sophisticated instrument lies the renowned Hamamatsu S10420 CCD chip, which boasts a large sensing area that is instrumental in capturing detailed spectral data with remarkable accuracy. This chip is designed to deliver stable spectral readings, ensuring consistent and dependable results over time.

The SR100B spectrometer is equipped with a 2048x64 pixel array, which, combined with a pixel size of 14x14μm, guarantees exceptional quantum efficiency and sensitivity across the broad spectrum ranging from 200 to 1100nm. This expansive range allows for the detection of a wide variety of materials and compounds, making the SR100B an invaluable tool in numerous scientific and industrial settings.

Moreover, the spectrometer offers the flexibility of customizable gratings and slit widths, enabling users to tailor the spectral resolution and sensitivity to their specific needs. This feature is particularly advantageous for researchers and technicians who require fine-tuning of their spectral analysis to achieve the highest level of detail and accuracy. The SR100B spectrometer's optical path is engineered for high-resolution performance, ensuring that even the most subtle spectral features are captured with clarity and precision.

Additionally, the spectrometer incorporates advanced FPGA (Field-Programmable Gate Array) signal processing technology, which is responsible for the impeccable quality of the spectrum signals produced. This technology also contributes to the device's stable and reliable performance, which is crucial for consistent data acquisition and analysis.

In summary, the SR100B spectrometer stands out as a robust and versatile instrument, capable of delivering superior spectral data across a diverse range of applications. Its cutting-edge components, coupled with its customizable features and unwavering performance, make it an indispensable asset in the fields of industrial analysis, scientific research, and beyond.

Product Parameters:

Detector	Chip Type	Back-illuminated cooling Hamamatsu S10420
	Effective Pixel	2048*64
	Pixel Size	14*14μm
	Sensing Area	28.672*0.896mm
Optical Parameters	Optical Design	F/4 cross type
	Numerical Aperture	0.13
	Focal Length	100mm
	Entrance Slit Width	10μm,25μm,50μm,100μm,200μm (customizable)
	Fiber Interface	SMA905,free space
Electrical Parameters	Integration Time	4ms~900s
	Data Output Interface	USB3.0,RS232,RS485,20pin connector
	ADC Bit Depth	16-bit
	Power Supply	5V
	Operating Current	<3.5A
Physical Parameters	Operating Temperature	10 ~40
	Storage Temperature	-20 ~60
	Operating Humidity	<90%RH(no condensation)
	Dimensions	180mm*120mm*50mm
	Weight	1.2kg

List of Product Models:

Model	Spectral Range(nm)	Resolution(nm)	Slit(μm)
SR100B-G21	200~1100	2.2	50
		1.5	25
		1.0	10
SR100B-G23	200~875	1.6	50
		1.0	25
SR100B-G24	350~1025	0.7	10
SR100B-G28	200~345	0.35	50
		0.2	25
		0.14	10
SR100B-G25	532~720(4900cm-1*)*	13cm-1	50
SR100B-G26	638~830(3200cm-1)*	10cm-1	25
SR100B-G27	785~1080(3200cm-1)*	11cm-1	50

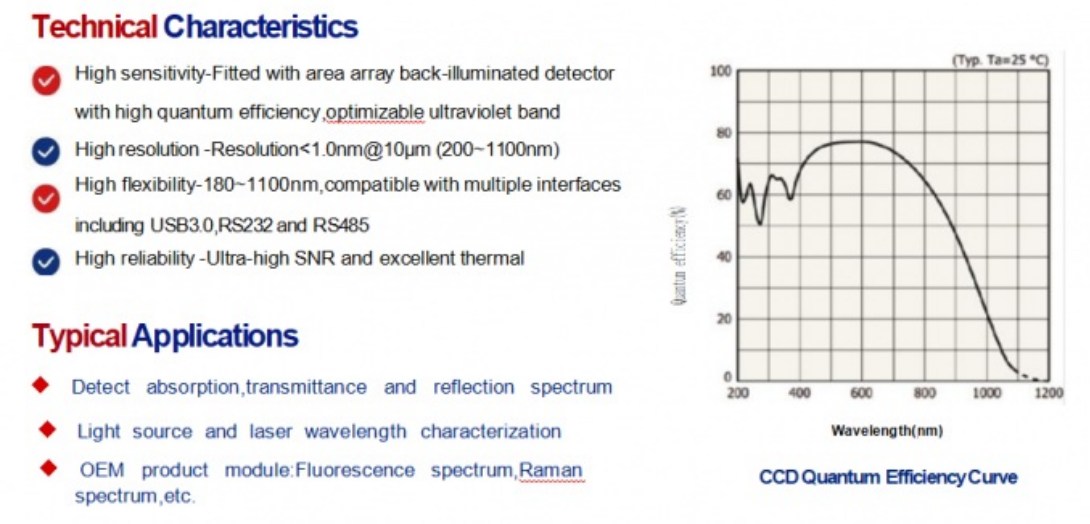
Note:The*are primarily designed for Raman applications, with the corresponding Raman.

Technical Characteristics:

High sensitivity-Fitted with area array back-illuminated detector with high quantum efficiency,optimizable ultraviolet band
High resolution -Resolution<1.0nm@10μm (200~1100nm)
High flexibility-180~1100nm,compatible with multiple interfaces including USB3.0,RS232 and RS485
High reliability -Ultra-high SNR and excellent thermal

Typical Applications:

Detect absorption, transmittance and reflection Spectrum
Light source and laser wavelength characterization
OEM product module:Fluorescence spectrum,Raman spectrum,etc.



Company Introduction:

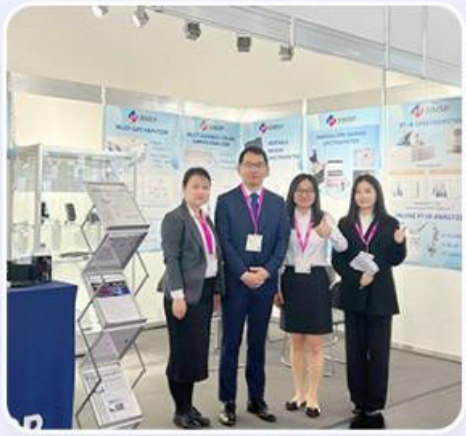
JINSP Company Limited, abbreviated as "JINSP", is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, LIBS technologies, etc. After 17 years of technology accumulation, the company's core key technologies have reached the international leading position at the level, and the cumulative number of patent applications exceeded 200.

In addition to its main headquarters located in the bustling city of Beijing, JINSP has established a fully owned subsidiary manufacturing facility situated in the province of Jiangsu, China.

JINSP Company received ISO9001:2015, ISO14001:2015, and ISO45001:2018 certifications. JINSP can provide required certifications, such as certification by the Ministry of Public Security or National Institute of Metrology, Environmental Level Certification, IP Level Certification, CE Certification, Transport Identification Report, EU ECAC certification, German ICT Security Testing, etc.

Company Profile

Exhibition



Certifications

FAQ

Q1:This is the first time I use,is it easy to operate?

A1:We will send you manual and guide vedio in English,it can teach you how to operate the spectrometer.Also our technicians will offer professional tecnical opearation meetings.

Q2:Can your offer a operation traning?
A2:Your technicians can come to our factory for a training. Jinsp engineers can go to your place for local support (installation , training, debugging, maintenance).

Q3:What's your website?
A3:You can visit:www.jinsptech.com

Q4:What about your quality assurance?
A4:We have a quality inspection team. All goods will go through quality inspection before shipment. We can send you pictures for inspection.

JINSP Company Ltd.

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