0.13 Numerical Aperture Fiber Optic Spectrometer for Wide Wavelength Range 200nm-1100nm

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: ISO9001 CE
- Model Number: SR100Z
- 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
- Fiber Interface: SMA905, Free Space
- Numerical Aperture: 0.13
- Focal Length: 100mm
- Dimensions: 180mm*120mm*50mm
- Weight: 1.2kg
- Highlight: **200nm Fiber Optic Spectrometer**, **1100nm Fiber Optic Spectrometer**, **200nm-1100nm Fiber Optic Spectrometer**

More Images

Product Description

Cooled Detector Low Noise High Sensitivity Modular Spectrometer

The JINSP SR100Z fiber optic spectrometer redefines precision with its Hamamatsu S11850 back-illuminated CCD and advanced thermal regulation. Its TE-cooled sensor maintains 5 stability, delivering 2x enhanced quantum efficiency (200nm ~ 1100nm) compared to linear arrays, while achieving 70% UV sensitivity for superior low-light performance.

Ideal for demanding applications from Raman spectroscopy to fluorescence analysis, this system combines a 2048x64 pixel array with FPGA-optimized signal processing. The expanded 14μm² pixel area ensures exceptional light capture, making it a versatile solution for both research labs and industrial spectral measurement needs.

Product Parameters:

Detector	Chip Type	Back-illuminated TE-cooling Hamamatsu S11850
	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°C ~ 40°C
	Storage Temperature	-20°C ~ 60°C
	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)
SR100Z-G21	200~1100	2.2nm	50μm
		1.5nm	25μm
		1.0nm	10μm
SR100Z-G23 SR100Z-G24	200~875 350~1025	1.6nm	50μm
		1.0nm	25μm
		0.7nm	10μm
SR100Z-G28	200~345	0.35nm	50μm
		0.2nm	25μm
		0.14nm	10μm
SR100Z-G25	532~720(4900cm-1*)*	13cm-1	50μm
SR100Z-G26	638~830(3200cm-1)*	10cm-1	25μm
SR100Z-G27	785~1080(3200cm-1)*	11cm-1	50μm

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

Technical Characteristics:

High sensitivity: 78% peak quantum efficiency, UV band optimization
High resolution: Realize resolution <1.0nm@25um (200~875nm)
High flexibility: 200nm~1100nm, compatible with multiple interfaces including USB3.0, RS232 and RS485

Typical Applications:

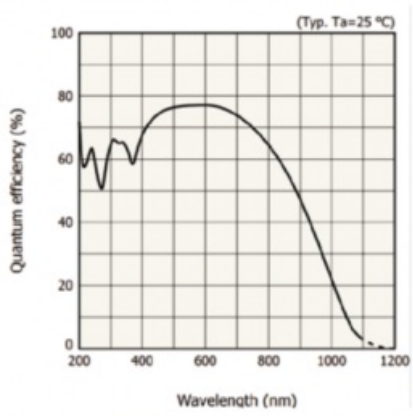
Detect absorption, transmittance and reflection Spectrum
OEM product module: Fluorescence spectrum, Raman spectrum,etc.

Technical Characteristics

- **High sensitivity:** 78% peak quantum efficiency, UV band optimization
- **High resolution:** Realize resolution <1.0nm@25um (200~875nm)
- **High SNR:** Integrated with TE-cooling
- **High flexibility:** 200~1100nm, compatible with multiple interfaces including USB3.0, RS232 and RS485

Typical Applications

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



CCD Quantum Efficiency Curve

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.

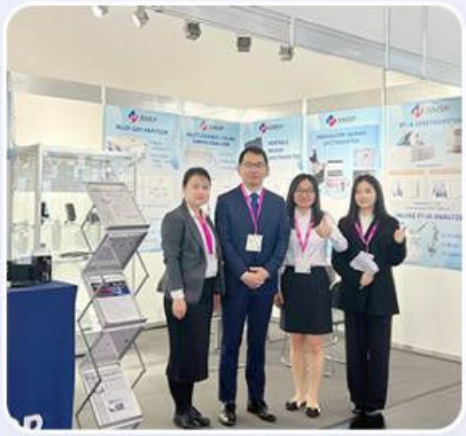
In addition to its main headquarters located in the bustling city of Beijing, JINSP has established a fully owned subsidiary manufacturing facility situated in the province of Jiangsu, China.

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.

8618620854039 phoebeyu@jinsptech.com spectralanalyser.com

21st Floor, Building D, Tsinghua Tongfang Science and Technology Plaza, Haidian District, Beijing China