Low Noise Miniature Fiber Optic Spectrometer for 200nm-1100nm Wavelength Range and Compact Dimensions of 110mm*95mm*43mm

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE
- Model Number: SR75C
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Customized Packaging
- Delivery Time: 30-50 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 100 PCS/70-90 days

Product Specification

- Wavelength Range: 200nm-1100nm
- Detector Type: Linear Array CMOS, Hamamatsu S11639
- Optical Design: Type M C-T Light Path
- Grating Slits: 10μm, 25μm, 50μm, 100μm, 200μm (customizable)
- Weight: 310g
- Dimension: 110mm*95mm*43mm
- Interface: USB 2.0
- Optical Interface: FC/PC Or SMA905
- Highlight: **Low Noise Miniature Fiber Optic Spectrometer**, **Compact Miniature Fiber Optic Spectrometer**, **200nm-1100nm Miniature Fiber Optic Spectrometer**

More Images

Our Product Introduction

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Product Description

Miniature Fiber Optic Modular Spectrometer JINSP SR75C

The compact size of this device is truly remarkable, housing a high-sensitivity linear array sensor that is capable of covering an extensive range. This sensor is not limited to just the visible spectrum; it also extends its capabilities into the ultraviolet and near-infrared regions. Specifically, it can detect wavelengths ranging from 200 nanometers all the way up to 1000 nanometers, making it a versatile tool for a variety of applications.

Moreover, this advanced sensor is equipped with USB connectivity, which greatly simplifies the process of integrating it into industrial systems. Its compatibility with USB interfaces ensures that it can be easily connected to computers and other control devices, facilitating seamless data transfer and control. This feature is particularly advantageous for industrial integration, as it allows for straightforward incorporation into existing setups without the need for extensive modifications or specialized hardware.

In summary, this compact yet powerful sensor is designed to meet the demands of modern industrial applications. Its broad spectral coverage, combined with convenient USB connectivity, makes it an ideal choice for applications requiring precise and efficient detection across multiple spectral ranges. The ease of integration and control further enhances its appeal, ensuring that it can be quickly and effortlessly incorporated into various industrial processes.

Technical Parameters:

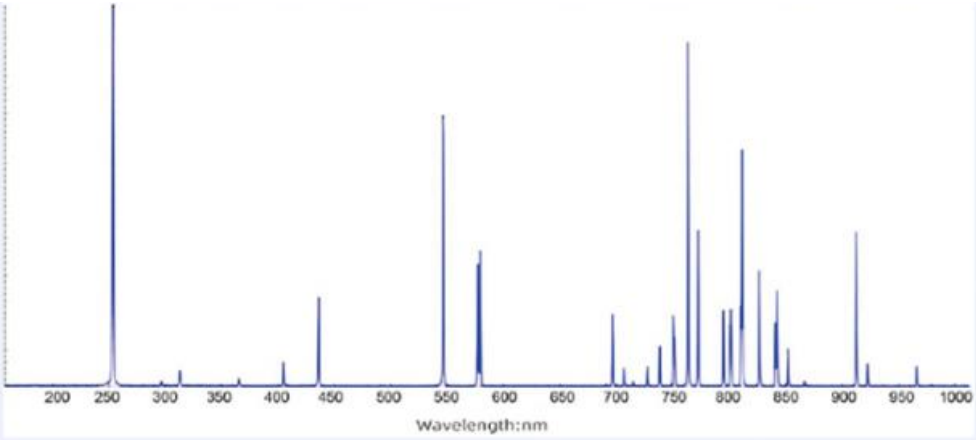
Detector	Chip Type	Linear array CMOS, Hamamatsu S11639
	Effective Pixel	2048
	Pixel Size	14μm *200μm
	Sensing Area	28.7mm *0.2mm
Optical Parameters	Optical Design	M Type C-T light path
	Numerical Aperture	0.085
	Entrance Slit Width	10μm, 25μm, 50μm, 100μm, 200μm (customizable)
	Spectrum Range and Resolution	See model table for details
	Fiber Input Interface	SMA905, free space
Electrical Parameters	Integration Time	1ms-60s
	Signal-to-Noise Ratio	650:1 (4ms)
	Data Output Interface	USB 2.0 or serial port
	ADC Bit Depth	16-bit
	Power Supply	DC 4.5V to 5.5V (type @5V)
	Operating Current	< 500mA
Others	Operating Temperature	10°C ~ 40°C
	Storage Temperature	-20°C ~ 60°C
	Operating Humidity	90%RH (no condensation)
	Dimensions	110mm*95mm*40.5mm
	Weight	310g

List of Product Models:

Model	Spectral Range (nm)	Resolution (nm)	Slit (μm)
SR75C-G02	510~1000 (VIS-NIR)	0.8	25
		0.5	10
SR75C-G04 SR75C-G06	200~450(UV) 330~570(VIS)	0.3-0.5	25
SR75C-G07 SR75C-G08	550~750(VIS) 750-900(NR)	0.2-0.3	10
SR75C-G09	180~340(UV)	0.3	25
SR75C-G10	500~600(VIS)	0.15~0.2	10

*** Customization available for other ranges**

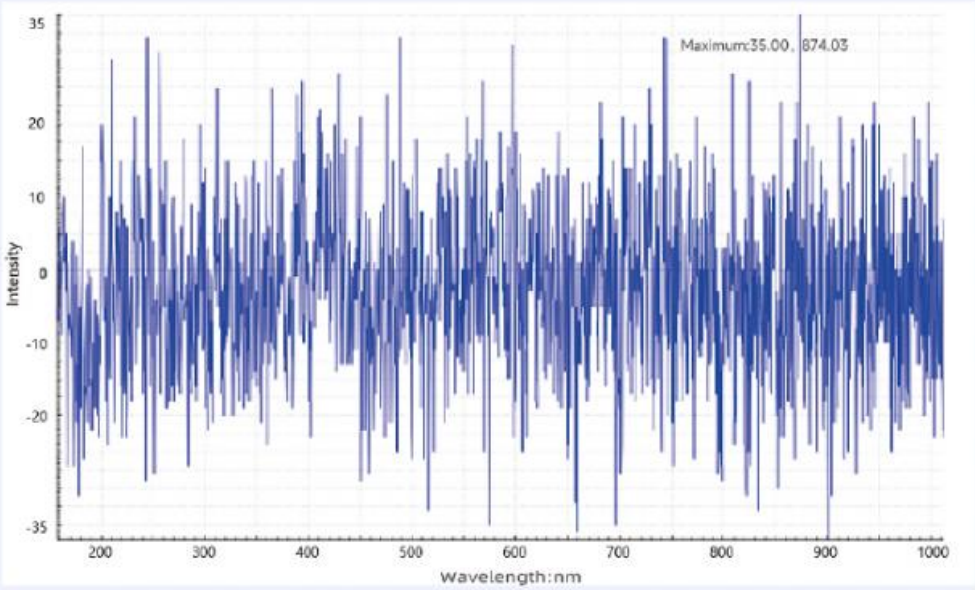
Typical Applications:
High Signal-to-Noise Ratio: Low-noise CMOS signal processing circuit, with excellent signal-to-noise ratio
Sensing Area: 28.7mm * 0.2mm
Detection of absorptance,transmittance, and reflectance in ultraviolet, visible, and near-infrared spectra
LIBS: Used for analyzing soil and minerals in geological detection and mining-related work
Water Quality and Environmental Protection:Online monitoring of organic substances and dissolved oxygen levels in environmental water
Technical Characteristic:
Wide Spectral Range Supports customized spectrum range of 200-1000nm
High Signal-to-Noise Ratio Low-noise CMOS signal processing circuit, with excellent signal-to-noise ratio
High Resolution M-shape C-T optical design



Test results and applications in the range of 200~1000nm

High Signal-to-Noise Ratio

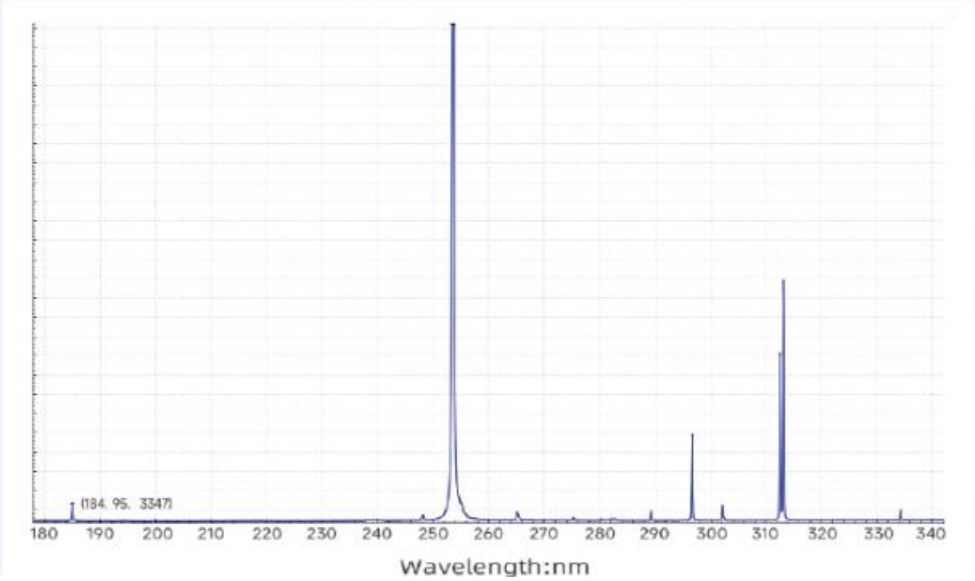
Low-noise CMOS signal processing circuit, with excellent signal-to-noise ratio



Low Noise: Dark noise standard deviation is approximately 20 for 10ms

High Resolution

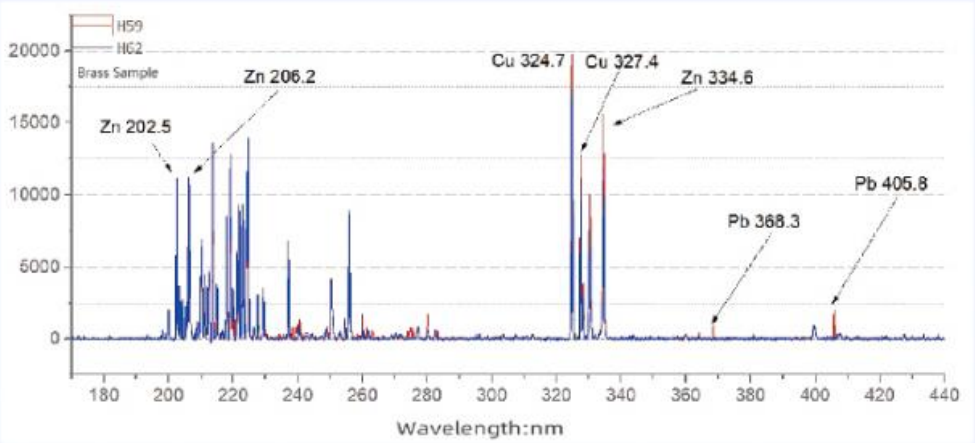
M-shape C-T optical design



Mercury-Argon Lamp Spectrum (UV 180340nm, Resolution 0.15nm)

Flexible Application

Supports output of spectrum data via USB and serial port, to integrate the applications

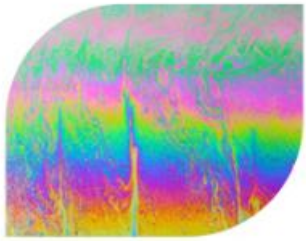


LIBS Mineral User Test Results

Typical Applications

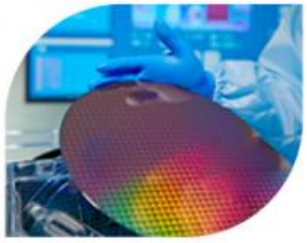
Flue Gas: Monitoring and identification of components in flue gas emissions.

Detection of absorptance, transmittance, and reflectance in ultraviolet, visible, and near-infrared spectra



LIBS: Used for analyzing soil and minerals in geological detection and mining-related work.

Water Quality and Environmental Protection: Online monitoring of organic substances and dissolved oxygen levels in environmental water.



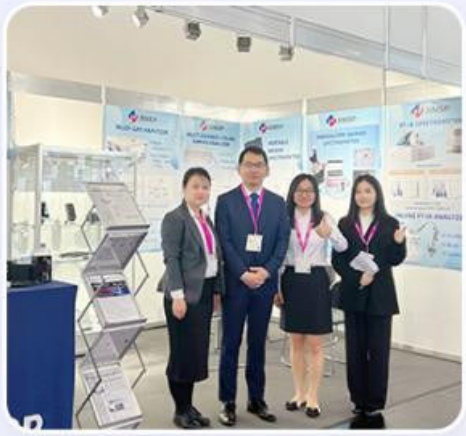
Light source and laser wavelength identification

Company Introduction:

JINSP Company Limited has won the National Science and Technology Commission's Scientific and Technological Achievement Appraisal Certificate and the China Patent Excellence Award, and related products have been obtained has won authoritative awards such as the Geneva International Invention Award, the Beijing New Technology and New Product Certificate, and the "Innovation Achievement Award" of the Zhu Liangyi Analytical Instrument Innovation Award.GB/T 40219-2021 "General Specification for Raman Spectrometer".

Company Profile

Exhibition



Certifications

FAQ

Q1: Is the price of this product negotiable?
A1: Yes, the price of this product is negotiable.
Q2: What are the payment terms for this product?
A2: The payment terms for this product are T/T and Western Union.
Q3: What is the supply ability for this product?
A3: The supply ability for this product is 100 PCS/70-90 days.
Q4: How long does it take to deliver this product?
A4: The delivery time for this product is 30-50 working days.

JINSP Company Ltd.

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