Back-Thinned CCD Cooled Fiber Optic Spectrometer Module SR100Q For Scientific Research Applications

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: ISO9001
- Model Number: SR100Q
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Customized Packaging
- Delivery Time: 90-120 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 5PCS/90-120 days

Product Specification

- Spectrual Range: 200nm - 1100nm
- Resolution: 1.2nm - 7.7nm
- Qutuam Efficiency: QE92%peak@650nm, 83%@232nm
- SNR: 1000:1
- Highlight: **Back-Thinned Fiber Optic Spectrometer**, **CCD Cooled Fiber Optic Spectrometer**, **Fiber Optic Spectrometer Module**

More Images

Our Product Introduction

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Product Description

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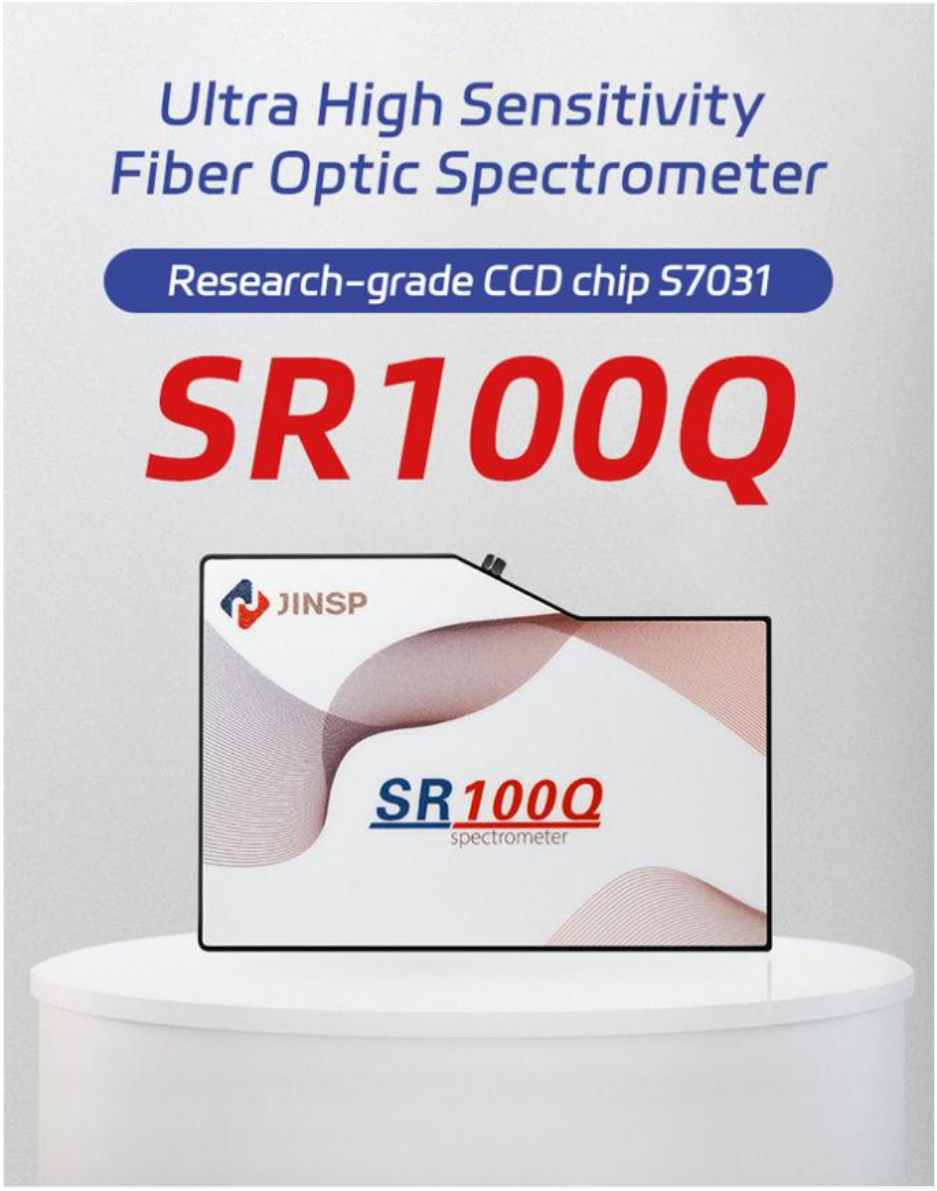
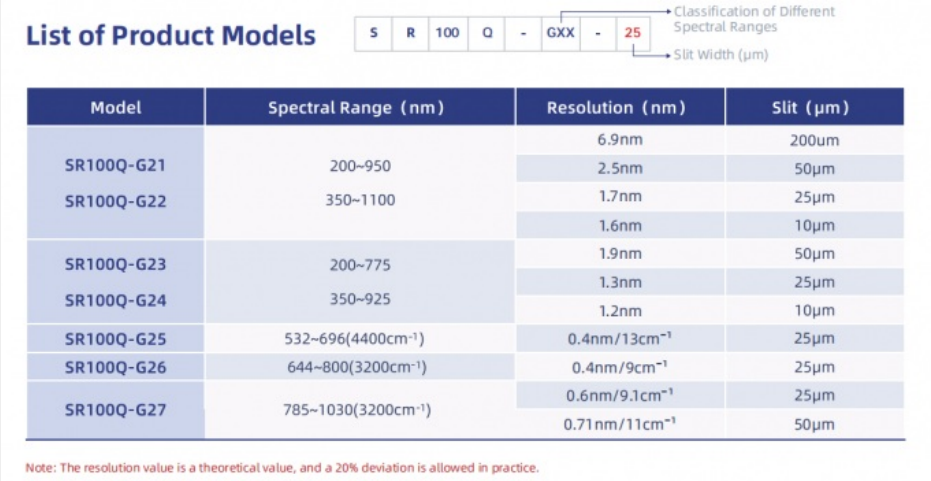
Ultra High Sensitivity Back-Thinned CCD Modular Fiber Optic Spectrometer SR100Q

The JINSP SR100Q spectrometer integrates the Hamamatsu S7031 scientific-grade TE-cooled area array CCD chip. With 24×24μm pixel size and quantum efficiency up to 92%, it delivers exceptional UV band response, significantly improving sensitivity and SNR for weak signals. The advanced high-resolution optical path combined with low-noise, high-speed FPGA signal processing ensures excellent spectral signals and stable, reliable performance. TE cooling technology dramatically reduces dark noise, making it ideal for weak light detection in scientific research applications.



Detailed Specifications

Chip Type	Back-illuminated TE-cooled Hamamatsu S7031
Effective Pixel	1024×122
Pixel Size	24×24 μm
Sensing Area	24.576×2.928mm
Quantum Efficiency	QE92% peak @650nm, 83%@232nm
Spectral Range	185~1100nm (customizable)
Resolution	1.2~7.7nm (customizable)
SNR	1000:1
Dimensions	185mm×126mm×53mm
Weight	1.7kg

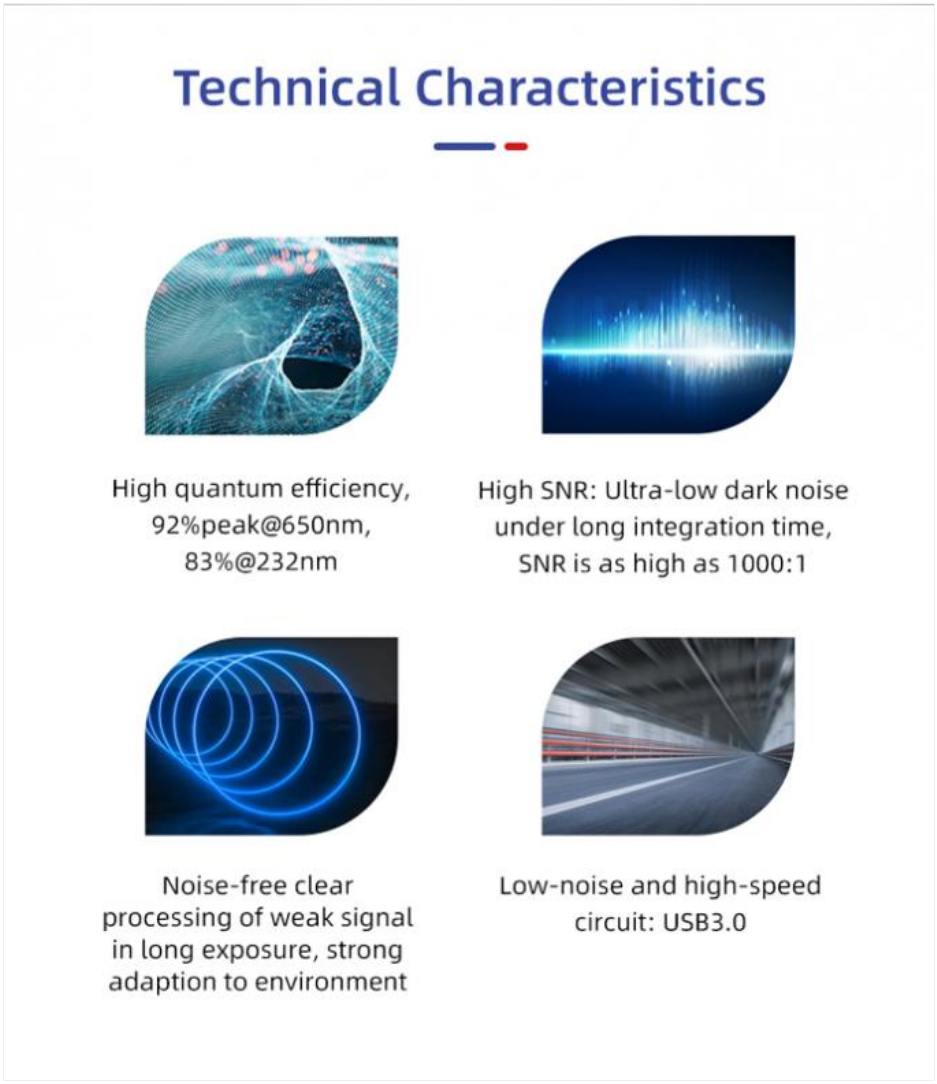


Model	Spectral Range (nm)	Resolution (nm)	Slit (μm)
SR100Q-G21	200~950	6.9nm	200um
		2.5nm	50μm
SR100Q-G22	350~1100	1.7nm	25μm
		1.6nm	10μm
SR100Q-G23	200~775	1.9nm	50μm
		1.3nm	25μm
SR100Q-G24	350~925	1.2nm	10μm
SR100Q-G25	532~696(4400cm^{-1})	0.4nm/13cm^{-1}	25μm
SR100Q-G26	644~800(3200cm^{-1})	0.4nm/9cm^{-1}	25μm
SR100Q-G27	785~1030(3200cm^{-1})	0.6nm/9.1cm^{-1}	25μm
		0.71nm/11cm^{-1}	50μm

Note: The resolution value is a theoretical value, and a 20% deviation is allowed in practice.

Technical Characteristics

- High quantum efficiency: 92% peak @650nm, 83%@232nm
- High SNR: Ultra-low dark noise under long integration time (1000:1 SNR)
- Noise-free processing of weak signals in long exposure with strong environmental adaptation
- Low-noise, high-speed circuit with USB3.0 interface



Typical Applications

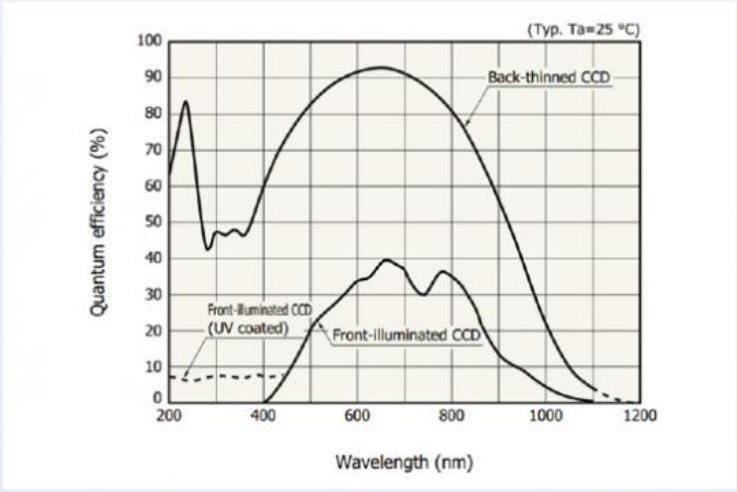
- Absorption, transmittance and reflection spectrum detection
- Light source and laser wavelength characterization
- OEM module for fluorescence spectrum, Raman spectrum applications

Typical Applications

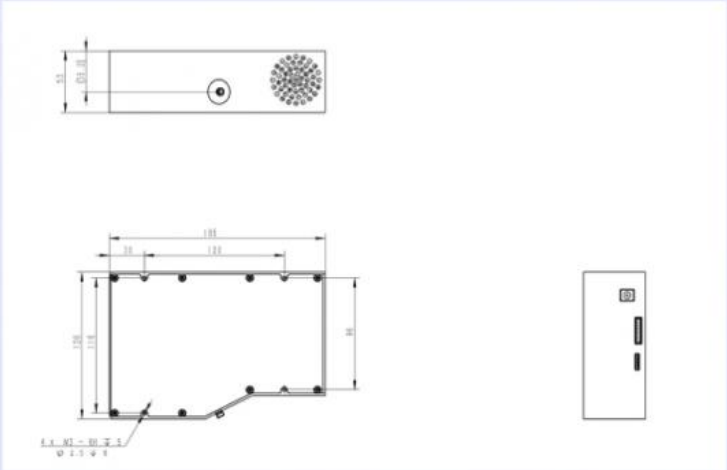
Detect absorption, transmittance and reflection Spectrum

Light source and laser wavelength characterization

OEM product module: Fluorescence spectrum, Raman spectrum, etc.



CCD Quantum Efficiency Curve



Installation dimension drawing

About JINSP Company Limited

JINSP is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, and LIBS technologies. Our core technologies have reached international leading levels, supported by over 200 patent applications. JINSP has received numerous awards including the Geneva International Invention Award and China Patent Excellence Award, and has participated in drafting several national

and international standards including IEC 63085 and GB/T standards for Raman spectroscopy applications.

Frequently Asked Questions

Q: This is my first time using the spectrometer. Is it easy to operate?

A: We provide an English manual and instructional video, along with professional technical support from our engineers.

Q: Do you offer operation training?

A: We provide both on-site training at our facility and can arrange for JINSP engineers to visit your location for installation, training, and maintenance support.

Q: What is your website?

A: Visit us at www.jinsptech.com

Q: What about your quality assurance?

A: All products undergo rigorous quality inspection before shipment, with documentation and photos available upon request.

JINSP Company Ltd.

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