Optoelectronics and Energy Devices Require Fiber Optic Spectrometer for Film Thickness Measurement

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: International Shipping Pakcage
- Delivery Time: 90-120 working days
- Payment Terms: T/T, Western Union
- Supply Ability: 100PCS/90-120 days

Product Specification

- Spectrual Range: 200nm - 1100nm
- Effective Pixels: 1024*122
- Qutuam Efficiency: QE92%peak@650nm, 83%@232nm
- SNR: 1000:1

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Product Description

92% High Quantum Spectrometer for Film Thickness Measurement

As thin films become ubiquitous in optoelectronics and energy devices, thickness measurement grows in importance. Photoelectric solutions outperform traditional methods by eliminating physical contact and preventing damage. Cutting-edge systems employing adaptive algorithms are transforming quality assurance processes across multiple sectors.

Product Parameters:

Detector	Chip Type	Back-illuminated TE-cooled Hamamatsu S7031
	Effective Pixel	1024*122
	Pixel Size	24*24μm
	Sensing Area	24.576*2.928mm
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	8ms-3600s
	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)
SR100Q-G21	200~950	6.8	200
		2.2	50
SR100Q-G22	350~1100	1.5	25
		1.0	10
SR100Q-G23	200~775	1.6	50
		1.0	25
SR100Q-G24	350~925	0.7	10
SR100Q-G25	532~690(4400cm-1*)*	13cm-1	50
SR100Q-G26	638~800(3200cm-1)*	10cm-1	25
SR100Q-G27	785~1050(3200cm-1)*	11cm-1	50

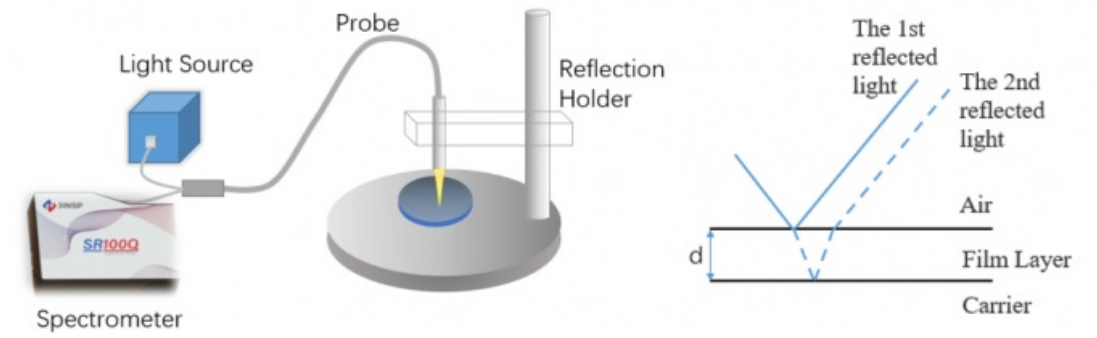
Note: The*are primarily designed for Raman applications, with the corresponding Raman.

Technical Characteristics:

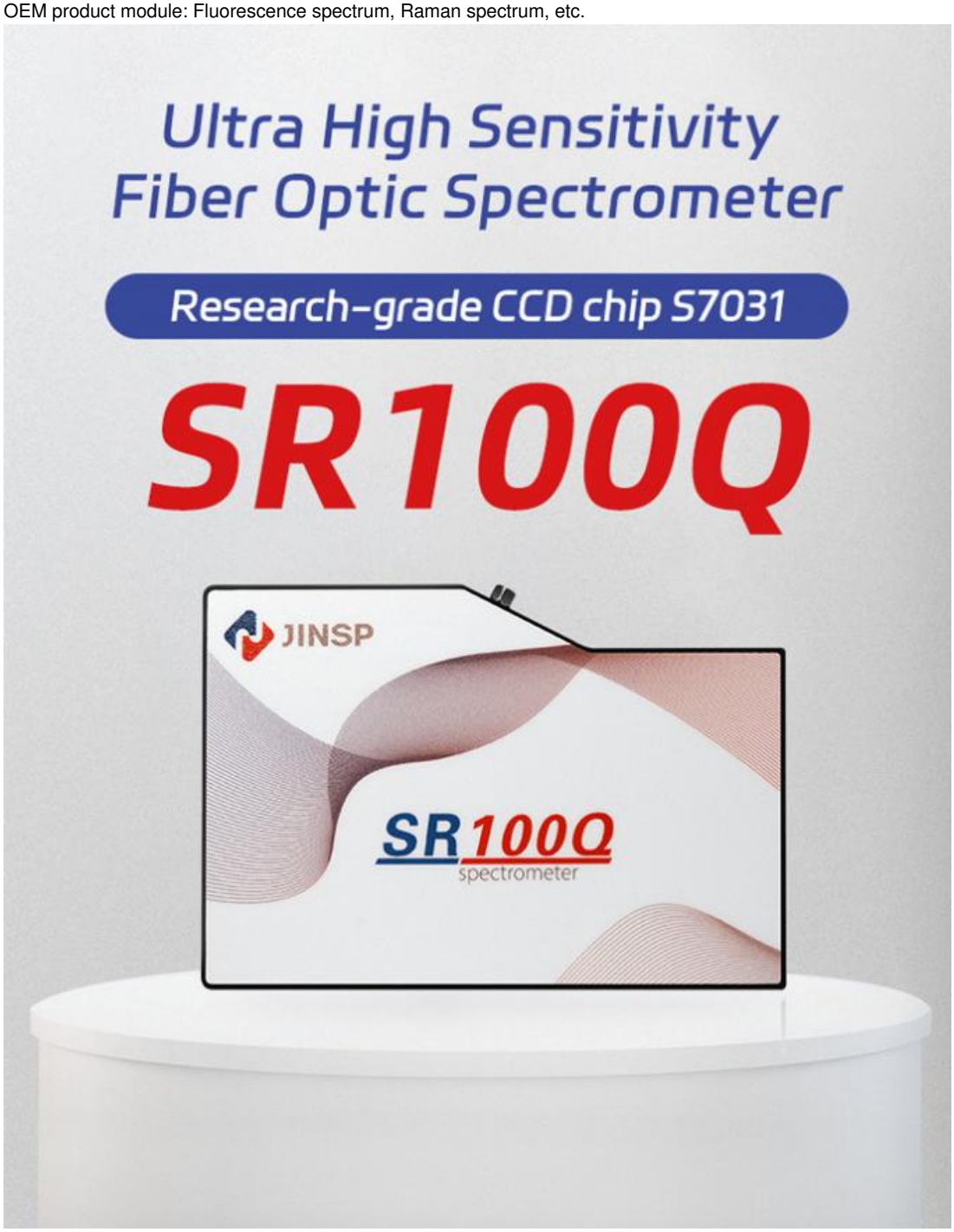
High quantum efficiency, 92%peak@650nm, 83%@232nm
High SNR: Ultra-low dark noise under long integration time, SNR is as high as 1000:1
Noise-free clear processing of weak signal in long exposure, strong adaption to environment
Low-noise and high-speed circuit: USB3.0

Measurement Method:

The optical fiber probe delivers light to the film, producing reflections at the air-film and film-substrate boundaries. The spectrometer captures the interference pattern formed by these beams, from which thickness (d) is derived via the extremum method (using θ, n, and spectral features). Fringe spacing varies with thickness (inversely with wavelength), necessitating tailored spectral parameters for accuracy.



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



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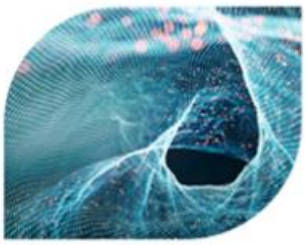

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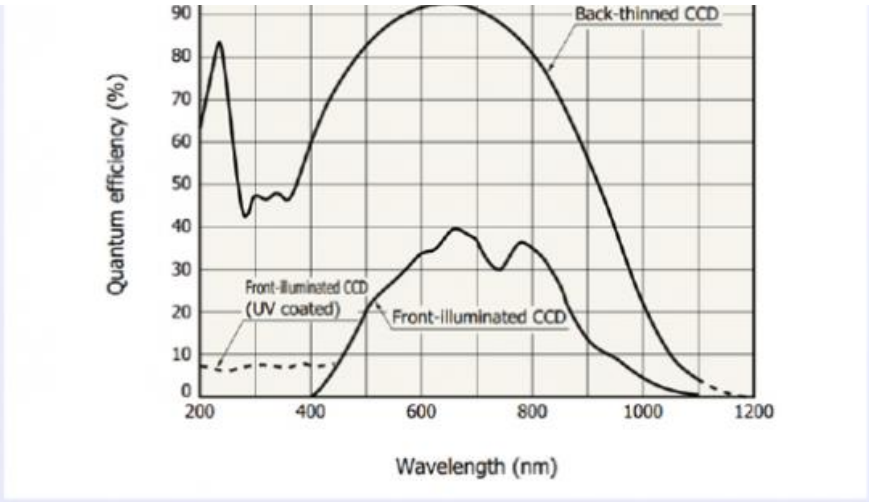
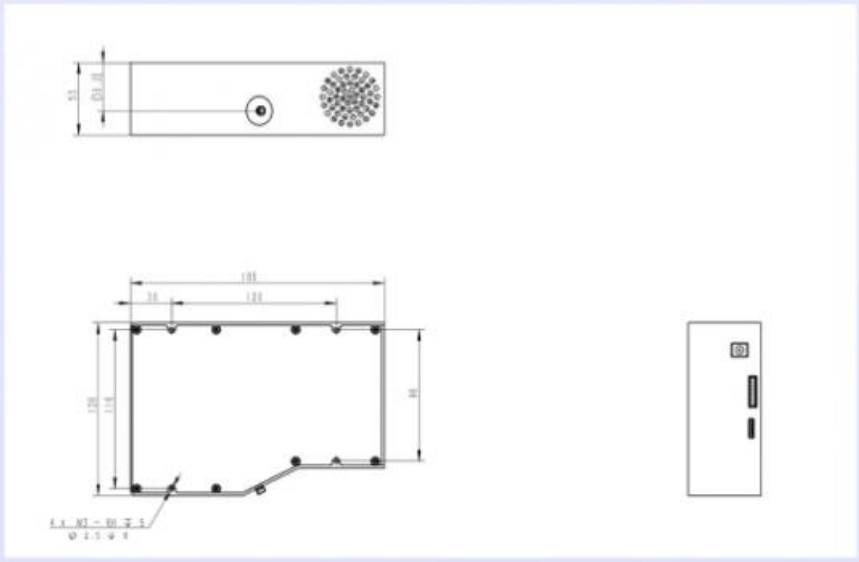


CCD Quantum Efficiency Curve



Installation dimension drawing

Company Introduction:

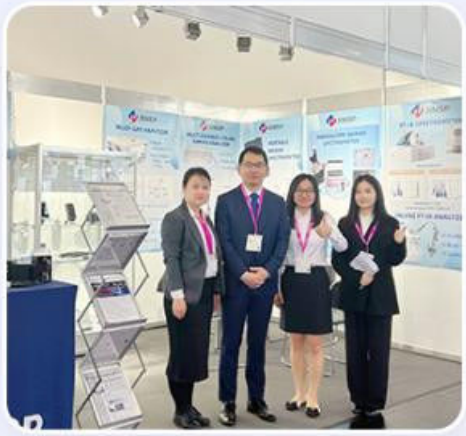
JINSP Company Limited, abbreviated as "JINSP", is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, LIBS technologies, etc. After 17 years of technology accumulation, the company's core key technologies have reached the international 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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