

NWS5800 Spectrometer

Description

The series of micro spectrometers is a network port version of spectrometer developed specifically for industrial on-site testing and applications requiring long-distance communication transmission. It supports three communication methods: Ethernet, USB, and serial port. When using Ethernet communication, multiple devices can be integrated through a switch, with a maximum of 100 devices being able to be used simultaneously online, making it highly suitable for multi-channel testing requirements.

Recommended application

Semiconductor testing

Film thickness measurement

Light intensity detection
performance

Online component detection in biomedicine
communication

Fruit sugar content
detection

Teaching and research
integration capabilities

Product Features:

Low drift

Low stray light

Higher cost

Network interface

Long-distance data transmission

Multiple

Spectral Specification	
Spectral Range	200- 1100nm (according to the selection table)
Spectral Resolution	Maximum 0.17nm
Optical Resolution	Maximum 0.8nm FWHM (according to the selection table)
Higher-Order Diffraction	Add high-order diffraction suppression filter (optional)
Stray Light	< 0.1%
Detector	
Detector Model	Hamamatsu CMOS Linear Array Sensor

Spectral Detection Range	200~1100nm
Pixel	2048 pixels
Pixel Size	14*200um
High Sensitivity	1300V(Ix*s)
Fastest Speed	10M
Optical Table	
Optical Path	F/4, symmetrical crossed Czerny-Turner optical path
Focal Length	70mm, 90mm
Incident Slit	Standard 70um (optional)
Optical Fiber	SMA905 0.22NA
Electrical Specification	
Signal-to-Noise Ratio	430:1
Linearity	>99%
Integration Time	0.4ms~1000ms
Dynamic Range	1500 : 1
AD	No distortion 16-bit
Test Speed	2.8ms + integration time for USB 3.3ms+ integration time for Ethernet
Communication Interface	USB 2.0, RS232, RS485
Power Consumption	16-pin external expansion interface; with external trigger function
Cooling	300mA@5VDC
Other Characteristics	
Support System	Windows, Android, Linux, Wince
Dimensions	127.4mm*98mm*40mm
Weight	800g
Fixed	3-direction standard installation holes

200 300 400 500 600 700 800 900 1000 1100	slit width μm	30	40	50	60	70	100	150	200
200~500nm	Optical Resolution nm	0.80	1.00	1.10	1.20	1.40	2.10	3.00	4.00
350~950nm		1.20	2.00	2.20	2.40	2.80	3.80	5.80	7.70
350~1100nm		1.70	2.20	2.70	3.20	3.60	5.00	7.20	9.70

Note: optical resolution refer to FWHM at 253.7nm.

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