

NWS3000 Spectrometer

Description

NWS3000 Designed and developed specifically for industrial application customers. Its notable features include high-speed spectral output, high-speed sampling, and high-speed transmission. This model spectrometer has a stable structure and low drift characteristics, which support large-scale industrial customized OEM applications. It supports cross-platform secondary development packages (SDK), and customers can complete rapid development and application by using the provided function libraries.

Resolution

Wavelength Range	Wavelength Resolution (nm)	30 µm slit	μm	50 µm slit	60 µm slit	70 µm slit	μm	150 µm slit	200 µm slit
200-500nm	0.32	0.80	1.00	1.10	1.20	1.40	2.10	3.00	4.00
350-950nm	0.66	1.20	2.00	2.20	2.40	2.80	3.80	5.80	7.70
600-1100nm	0.64	1.20	2.00	2.20	2.40	2.80	3.80	5.80	7.70

Application

Wafer inspection

Optical spectroscopy inspection

Online high-speed spectroscopy inspection - Film transmittance inspection Industrial integration inspection

Teaching and research

Product Features:

High sensitivity

High-speed chromatogram output: up to 10 MHz

Ultraviolet response: 200 - 1000 nm

High-speed sampling: up to 0.8 ms per frame

Low stray light

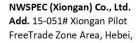
One low drift characteristic

One automatic zeroing function

High cost-effectiveness

Specification

Spectral Specification





Spectral Range: 200-1100nm

Spectral Resolution: Maximum 0.32 nm

Optical Resolution: Maximum 0.8nm FWHM

Higher-Order Diffraction: Add a high-order diffraction suppression filter

Stray Light: <0.1%

Detector:

Detector Model: Hamamatsu CMOS linear array sensor

Spectral Detection Range: 200~1100nm
Pixel: 1024 pixels
Pixel Size: 25*500um
High Sensitivity: 2600V(Ix*s)

Fastest Speed: 10M

Optical Table

Optical Path: F/4, symmetrical cross Czerney-Turner optical path

Focal Length: 70mm; 90mm

Incident Slit: Standard 70um (optional)

Optical Fiber: SMA905 0.22NA

Electronic Property

Signal-to-Noise Ratio: 500:01:00 Linearity: >99.8% Integration Time: 0.1ms~1s Dynamic Range: 150000

AD: No distortion 16-bit

Test Speed: 1.8ms + integration time Communication Interface: USB 2.0; RS232; RS485

Power Consumption: 16-pin expansion interface; with external trigger function

Cooling: 300mA@5VDC

Other Characteristics

Support System: Windows, Android, Linux, Wince

Dimensions: 128mm*72mm*40mm

Weight: 500g

Fixed: 3-direction standard installation holes