

Cooled NIR Fiber Spectrometer (900-2200nm) N-series

The core component adopts InGaAs linear image sensor, which has high sensitivity and stability in the near-infrared region. Professional spectroscopy equipment for scientific research-grade near-infrared applications. It has the characteristics of small size, easy operation, and excellent performance.

Features

- Support GPIO
- Cooled InGaSn Detectors
- Batch Consistency Control
- High signal-to-noise ratio, low stray light
- Transmitted Light Path



Technical Advantages

1. High sensitivity, high dynamic range

The N series spectrometer features Hamamatsu InGaAs linear image sensors, with TEC cooling, up to -20°C , which makes the detector less noisy, which makes it more suitable for low-light detection; the signal-to-noise ratio and dynamic range can reach 15000:1. Continuing the high-throughput structure design of HiNa series, F/2 can not only fully couple the input from 0.22NA fiber, but also has design redundancy, which can be compatible with unique fiber with a larger numerical aperture or customized input optical paths.

2. Powerful PC software

The PC software provided with the spectrometer-FLAVOR is powerful software. In addition to the basic spectrum acquisition control functions, it also has functions such as saturation and automatic adjustment of the integration time, recording of the real integration time, and automatic peak finding. At the same time, the software also includes characteristic functions such as wavelet smoothing with patented technology. SDK supports Windows, Android, and Linux operating systems, and can provide secondary development packages in C#, C++, Java, Python, and other languages.

3. High stability

$0\sim 40^{\circ}\text{C}$, the spectral resolution remains unchanged, which is the best choice for industrial applications.

4. Simple to use

No configuration, preheating, plug and play
Separate 5V DC power supply

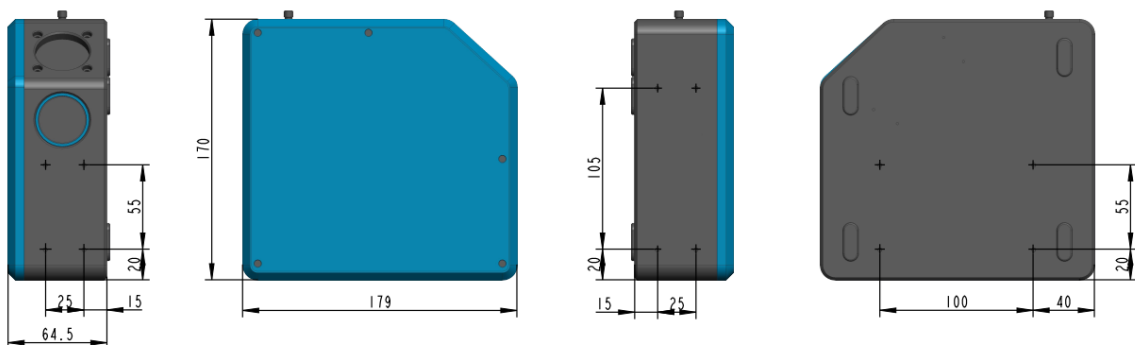
Product Parameters

Wavelength Range	900 - 2500nm, depending on the grating
Resolution	3nm FWHM or above
Total Number of Pixels	256pixels or 512 pixels (model number with the end of 'p')
Detector	G11508-SA, 900-1700nm, the maximum cooling is lower than ambient temperature of 40°C. G11477-WB, 900-2200nm, the maximum cooling is lower than ambient temperature of 50°C. G11478-WB, 900-2500nm, the maximum cooling is lower than ambient temperature of 50°C.
Dynamic Range	14,000:1
Signal to Noise Ratio	10,000:1
Integration Time	5us - 120s
F/#	2.0
Grating	25um, 50um, 100um, 200um
Plug and play	SMA905 or FC/PC
Size/Weight	170 x 179 x 64.5mm / 1.5kg
OEM/Customization	Contact us for customization

Product Specifications*

Model	Wavelength Range	Slit Width			
		25 um	50 um	100 um	200 um
N/900-1700p	900-1700nm	3nm	5nm	10nm	20nm
N/900-2200	900-2200nm	/	10nm	16nm	32nm
N/900-1200p	900-2200nm	5nm	8nm	16nm	32nm
N/900-2500p	900-2500nm	6nm	9nm	18nm	36nm

Product Size

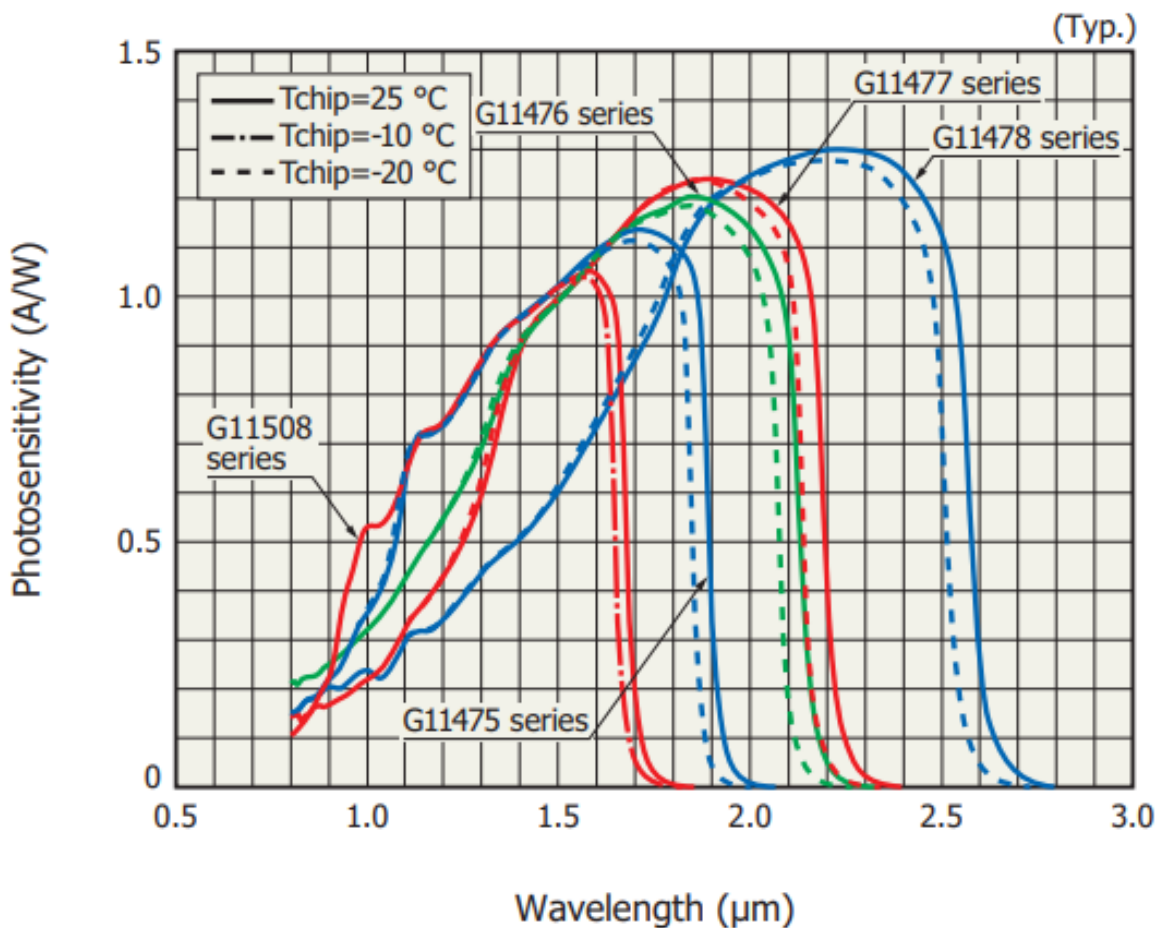


Applications

- Microspectroscopy
- Transmittance Measurements
- Jewellery / Ore Spectroscopy
- Plant / Biological Sample Testing
- Textile Testing
- Antique / Artifact Test

Configuration Example

Detector Response Curve



*Due to ongoing continuous product improvement, specifications are subject to change without notice.