

XOA-1200 Optical Spectrum Analyzer

Visible-to-near-infrared spectral analysis from 350 nm to 1200 nm

At a Glance

The XOA-1200 spans 350 nm to 1200 nm, providing one platform for visible-to-near-infrared spectral measurement in research, development, and production environments.

A 0.01 nm resolution setting is available from 400 nm to 470 nm; across the full wavelength range, selectable settings extend from 0.02 nm to 10 nm.

Sensitivity reaches -80 dBm from 500 to 1000 nm at resolution ≥ 0.2 nm, 10 averages and HIGH3; dynamic range is 60 dB at 633 nm, 0.02 nm resolution and peak ± 0.5 nm.



XGY

XOA-1200 Optical Spectrum Analyzer

Broadband Analysis for Short-Wavelength Optical Devices

The XOA-1200 measures optical spectra from the visible band into the near infrared. High wavelength resolution and wide dynamic range help reveal fine spectral detail and reproduce device characteristics clearly.

Its coverage supports the development and manufacture of short-wavelength lasers, LEDs, passive optical components, and systems used in biomedical, material-processing, consumer, and health-care applications.



Measurement Highlights

- **350-1200 nm Coverage**

A wide scan range connects visible and near-infrared device measurements in one instrument.

- **10 pm in the 400-470 nm Band**

The finest 0.01 nm resolution setting is available specifically from 400 nm to 470 nm.

- **Calibrated Wavelength Accuracy**

After wavelength calibration with a 633 nm He-Ne laser, accuracy is ± 0.05 nm at 633 nm and ± 0.2 nm from 400 nm to 1100 nm.

- **60 dB Dynamic Range at 633 nm**

The specified value applies with 0.02 nm resolution at peak ± 0.5 nm.

- **Sensitivity to -80 dBm**

The -80 dBm figure applies from 500 nm to 1000 nm at resolution ≥ 0.2 nm, 10 averages, and HIGH3 sensitivity.

- **Flexible Fiber Coupling**

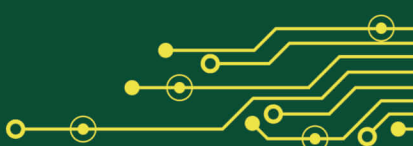
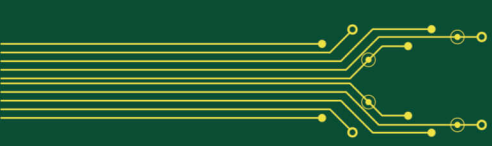
Supports single-mode, 50/125 μ m and 62.5/125 μ m graded-index, and large-core fibers up to 800 μ m.

- **Five Sensitivity Settings**

NORMAL, MID, HIGH1, HIGH2, and HIGH3 modes provide specified scan times from 1 second to 75 seconds.

- **Integrated Analysis Interface**

Includes multi-application spectrum analysis with VIS color analysis through a 12.1-inch touchscreen.



Application Areas

Short-Wavelength Lasers

Resolve spectral detail while developing and manufacturing short-wavelength laser devices and systems.

LED Development

Characterize visible and near-infrared LED output across a broad wavelength span.

Passive Optical Components

Measure spectral behavior during passive-device development and production.

Biomedical Systems

Support optical-device and system work for biomedical applications.

Material Processing

Evaluate optical sources and components used in material-processing equipment.

Consumer and Health-Care Products

Assist development and manufacturing of equipment that incorporates supported lasers, LEDs, and passive components.

Spectral Measurement Specifications

Performance values apply only over the listed wavelength intervals and under the stated measurement conditions.

Wavelength and Sampling	
Spectral range	350 nm to 1200 nm
Scan span	0.5 nm to 850 nm (full-range span); 0 nm
Wavelength accuracy	±0.05 nm at 633 nm; ±0.2 nm from 400 nm to 1100 nm
Wavelength resolution settings	0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, and 10 nm across the full wavelength range; 0.01 nm from 400 nm to 470 nm
Minimum sampling resolution	0.001 nm
Sampling points	101 to 50,001; AUTO
Sensitivity	
Sensitivity modes	NORMAL, MID, HIGH1, HIGH2, HIGH3
Power sensitivity	-80 dBm from 500 nm to 1000 nm; -60 dBm from 400 nm to 500 nm and from 1000 nm to 1100 nm

The wavelength-accuracy values apply after calibration with a 633 nm He-Ne laser.

Sensitivity values apply at resolution ≥0.2 nm, 10 averages and HIGH3 over the published 400-1100 nm coverage.

Power, Dynamic Range, and Interface Specifications

Optical Power Performance	
Maximum safe input power	+20 dBm from 550 nm to 1100 nm; +10 dBm from 400 nm to 550 nm; total input power
Power accuracy	±1.0 dB at 850 nm and -20 dBm input; resolution ≥0.2 nm; MID or HIGH1-HIGH3; SMF MFD 5 µm at 850 nm, NA 0.14
Power linearity	±0.2 dB from -40 dBm to 0 dBm; HIGH1-HIGH3
Dynamic range	60 dB at 633 nm, peak ±0.5 nm, with 0.02 nm resolution
Connection and Operation	
Optical connector	FC type for optical input and calibration output
Scan time	NORMAL: 1 s; MID: 2 s; HIGH1: 5 s; HIGH2: 20 s; HIGH3: 75 s
Applicable fibers	SM; GI 50/125 µm and 62.5/125 µm; large-core fiber up to 800 µm
Built-in light source	Optical-axis alignment source for alignment adjustment; no wavelength reference source required

Maximum-safe-input ratings apply over the published 400-1100 nm coverage.

All range-dependent performance values are limited to the wavelength intervals and conditions shown.

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Specifications subject to change without notice. Per AS/NZS standards.