



The world's most trusted OSAs

Optical Spectrum Analyzer
Selection Guide

Precision Making

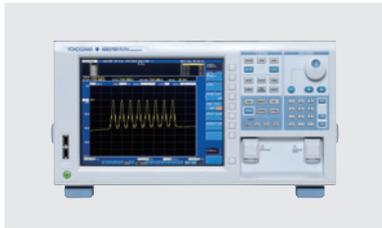
Bulletin OSA-01EN



Selection guide

The AQ6370 series are high-speed and high-performance Optical Spectrum Analyzers based on the diffraction grating technology.

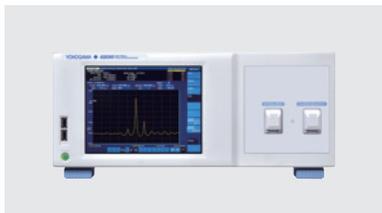
They satisfy measurement needs of a wide range of R&D and industrial manufacturing applications with a product lineup of five models covering the broad wavelength range from visible light to mid-infrared (350 to 5500 nm).



AQ6370D Dedicated for telecom applications

Optical communications

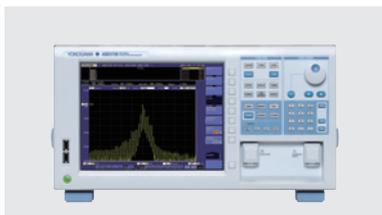
- Wavelength range: 600 to 1700 nm
 - Wavelength accuracy: ± 0.01 nm (high-performance model)
 - Wavelength resolution setting: 0.02 to 2 nm
 - Level range: +20 to -90 dBm
 - Close-in dynamic range: 78 dB typ. (peak ± 1.0 nm, high-performance model)
- <Applications>
- Emission spectrum evaluation of optical transceivers and LD modules
 - OSNR measurement of WDM transmission signals
 - Optical amplifier (EDFA) measurement



AQ6360 Our fastest OSA optimized for optical device manufacturing

Optical communications

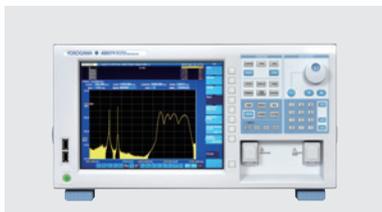
- Wavelength range: 1200 to 1650 nm
 - Wavelength accuracy: ± 0.02 nm
 - Wavelength resolution setting: 0.1 to 2 nm
 - Level range: +20 to -80 dBm
 - Close-in dynamic range: 55 dB (peak ± 0.4 nm)
- <Applications>
- LD chip and TOSA measurement
 - Optical transceiver and Optical amplifier test



AQ6373B Optimized for visible light measurements

VIS

- Wavelength range: 350 to 1200 nm
 - Wavelength accuracy: ± 0.05 nm
 - Wavelength resolution setting: 0.01 to 10 nm
 - Level range: +20 to -80 dBm
 - Close-in dynamic range: 60 dB (peak ± 0.5 nm)
- <Applications>
- Characterization of light sources used in biomedical and consumer products
 - Color analysis of visible LED

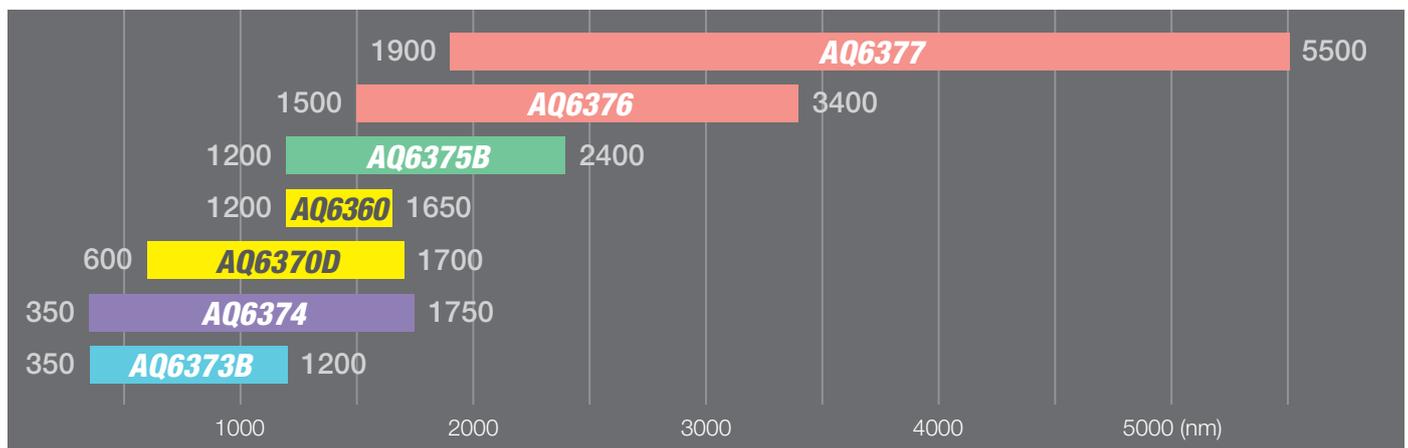


AQ6374 Wide range model covering the spectrum from visible to communication wavelengths

VIS & optical communications

- Wavelength range: 350 to 1750 nm
 - Wavelength accuracy: ± 0.05 nm
 - Wavelength resolution setting: 0.05 to 10 nm
 - Level range: +20 to -80 dBm
 - Close-in dynamic range: 60 dB (peak ± 1.0 nm)
- <Applications>
- Wavelength loss characteristics of optical fibers
 - Characterization of broadband light sources
 - Characterization of lasers from visible light to optical communications wavelengths

Wavelengths covered by each model





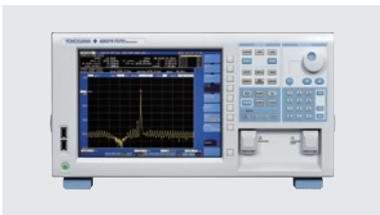
AQ6375B Long wavelength model covering the exNIR region over 2 μm

exNIR

- Wavelength range: 1200 to 2400 nm
- Wavelength accuracy: ± 0.05 nm
- Wavelength resolution setting: 0.05 to 2 nm
- Level range: +20 to -70 dBm
- Close-in dynamic range: 55 dB (peak ± 0.8 nm)

<Applications>

- Characterization of sources used in Laser Absorption Spectroscopy
- Characterization of broadband light sources such as Supercontinuum light sources
- Measurement of gas absorption spectra



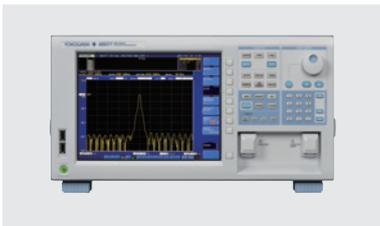
AQ6376 Long wavelength model covering the MWIR region over 3 μm

MWIR

- Wavelength range: 1500 to 3400 nm
- Wavelength accuracy: ± 0.5 nm
- Wavelength resolution setting: 0.1 to 2 nm
- Level range: +13 to -65 dBm
- Close-in dynamic range: 55 dB (peak ± 2.0 nm)

<Applications>

- Characterization of sources used in Laser Absorption Spectroscopy
- Characterization of broadband light sources such as Supercontinuum light sources
- Measurement of gas absorption spectra



AQ6377 Long wavelength model covering the MWIR region over 5 μm

MWIR

- Wavelength range: 1900 to 5500 nm
- Wavelength accuracy: ± 0.5 nm
- Wavelength resolution setting: 0.2 to 5 nm
- Level range: +13 to -60 dBm
- Close-in dynamic range: 50 dB (peak ± 5.0 nm)

<Applications>

- Characterization of sources used in Laser Absorption Spectroscopy
- Characterization of broadband light sources such as Supercontinuum light sources
- Measurement of gas absorption spectra

Related products

AQ6150 Series Optical Wavelength Meters

The AQ6150B and AQ6151B Optical Wavelength Meters are fast, accurate and cost-effective instruments for carrying out measurements in the telecommunications wavelength range from 900 to 1700 nm.



AQ2200 Series

Multi-Application Test System (MATS)

The AQ2200 MATS is the ideal system for measuring and evaluating a wide range of optical devices and optical transmission systems.

A variety of measurement modules are available, including: high-stability light sources, high-speed optical sensors, high-resolution variable optical attenuators, low insertion loss optical switches, and optical transceiver interfaces. These modules can be installed in any combination on a single platform, providing an ideal measurement system for a variety of applications.



Specifications and features

Model	AQ6370D	AQ6360	AQ6373B	AQ6374	AQ6375B	AQ6376	AQ6377
Band	Optical communication	Optical communication	VIS	VIS & optical communication	exNIR	MWIR	MWIR
Wavelength range (nm)	Min.	600	1200	350	350	1200	1500
	Max.	1700	1650	1200	1750	2400	3400
Wavelength accuracy (nm)		±0.1 (Full range)	±0.1 (Full range)	±0.2 (Full range)	±0.2 (Full range)	±0.5 (Full range)	±0.5 (Full range)
		±0.04 (1450 to 1520 nm)	±0.02 (1520 to 1580 nm)	±0.05 (633 nm)	±0.05 (633 nm)	±0.05 (1520 to 1580 nm)	
		±0.01 (1520 to 1580 nm)*	±0.04 (1580 to 1620 nm)		±0.05 (1523 nm)	±0.1 (1580 to 1620 nm)	
		±0.02 (1580 to 1620 nm)					
Wavelength linearity (nm)	±0.01 to 0.02	±0.02	—	—	—	—	—
Wavelength resolution setting (nm)	Min.	0.02	0.1	0.01	0.05	0.05	0.1
	Max.	2	2	10	10	2	2
Maximum number of sampling	50001	50001	50001	100001	50001	50001	50001
Measurement level range (dBm)	Max.	+20	+20	+10 (400 to 550 nm) +20 (550 to 1100 nm)	+10 (400 to 550 nm) +20 (550 to 1700 nm)	+20	+13
	Min.	-60 (600 to 1000 nm) -80 (1000 to 1300 nm) -90 (1300 to 1620 nm)	-80 (1300 to 1620 nm)	-60 (400 to 500 nm, typ.) -80 (500 to 1000 nm, typ.) -60 (1000 to 1100 nm, typ.)	-70 (400 to 900 nm) -80 (900 to 1600 nm)	-62 (1300 to 1500 nm) -67 (1500 to 1800 nm) -70 (1800 to 2200 nm) -67 (2200 to 2400 nm)	-65 (1500 to 2200 nm) -55 (2200 to 3200 nm)
Level accuracy (dB)	±0.4	±0.5	±1.0	±1.0	±1.0	±1.0	±2.0 typ.
Level linearity (dB)	±0.05	±0.1	±0.2	±0.2	±0.05	±0.2	—
Level flatness (dB)	±0.1 to ±0.2	±0.2	—	—	—	—	—
Polarization dependence (dB)	±0.05 to ±0.08	±0.1	—	±0.15	±0.1	—	—
Dynamic range (dB)		50 (±0.1 nm, RES: 0.02 nm, typ.)*	40 (±0.2 nm, RES: 0.1 nm)	60 (±0.5 nm, RES: 0.02 nm)	60 (±1.0 nm, RES: 0.05 nm)	45 (±0.4 nm, RES: 0.05 nm)	40 (±1.0 nm, RES: 0.1 nm)
		78 (±1.0 nm, RES: 0.05 nm, typ.)*	55 (±0.4 nm, RES: 0.1 nm)			55 (±0.8 nm, RES: 0.05 nm)	55 (±2.0 nm, RES: 0.1 nm)
Applicable fiber	SMF	Yes	Yes	Yes	Yes	Yes	Yes
	GI	Yes	Yes	Yes	Yes	Yes	—
	Large core	Yes	—	Yes	Yes	—	Yes
Purge feature	—	—	—	Yes	Yes	Yes	Yes
Built-in cut filter for high order diffracted light	—	—	Yes	Yes	Yes	Yes	Yes
Light source for wavelength calibration	Yes	Yes	—	Yes	Yes	Yes	Yes

*High performance model

*For more information about the features and specifications of the each product, please refer to the brochure (AQ6370SR-20EN, AQ6360-01EN).

Yokogawa's Approach to Preserving the Global Environment

- Yokogawa's electrical products are developed and produced in facilities that have received ISO14001 approval.
- In order to protect the global environment, Yokogawa's electrical products are designed in accordance with Yokogawa's Environmentally Friendly Product Design Guidelines and Product Design Assessment Criteria.

YOKOGAWA

<https://tmi.yokogawa.com/>

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YOKOGAWA TEST & MEASUREMENT CORPORATION

Global Sales Dept. /Phone: +81-422-52-6237 E-mail: tm@cs.jp.yokogawa.com
Facsimile: +81-422-52-6462

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YOKOGAWA CORPORATION OF AMERICA

Phone: +1-800-888-6400 E-mail: tmi@us.yokogawa.com

YOKOGAWA EUROPE B.V.

Phone: +31-88-4641429 E-mail: tmi@nl.yokogawa.com

YOKOGAWA TEST & MEASUREMENT (SHANGHAI) CO., LTD.

Phone: +86-21-6239-6363 E-mail: tmi@cs.cn.yokogawa.com

YOKOGAWA ELECTRIC KOREA CO., LTD.

Phone: +82-2-2628-3810 E-mail: TMI@kr.yokogawa.com

YOKOGAWA ENGINEERING ASIA PTE. LTD.

Phone: +65-6241-9933 E-mail: TMI@sg.yokogawa.com

YOKOGAWA INDIA LTD.

Phone: +91-80-4158-6396 E-mail: tmi@in.yokogawa.com

YOKOGAWA ELECTRIC CIS LTD.

Phone: +7-495-737-78-68 E-mail: info@ru.yokogawa.com

YOKOGAWA AMERICA DO SUL LTDA.

Phone: +55-11-3513-1300 E-mail: tm@br.yokogawa.com

YOKOGAWA MIDDLE EAST & AFRICA B.S.C(c)

Phone: +973-17-358100 E-mail: help.ymatmi@bh.yokogawa.com Facsimile: +973-17-336100

Facsimile: +86-21-6880-4987

Facsimile: +82-2-2628-3899

Facsimile: +65-6241-9919

Facsimile: +91-80-2852-1442

Facsimile: +7-495-737-78-69

Facsimile: +973-17-336100