# Test&Measurement













# The world's most trusted OSAs

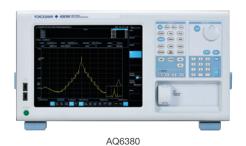
Optical Spectrum Analyzer Selection Guide

**Precision Making** 

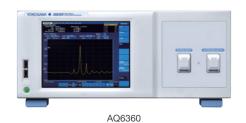
Bulletin OSA-02EN

# Selection guide

Yokogawa offers diffraction grating based optical spectrum analyzers with high-speed and high-performance that meets the measurement needs of a wide range of R&D and industrial manufacturing applications. An extensive product lineup covers a wide wavelength range from visible to mid-infrared (350 to 5500 nm). This document will help you choose the best model for your measurement needs.







# **Specifications and features**

•													
						Wavelength resolution (nm)		Wavelength accuracy (nm)					
Wavelength band/Feature/Model			Wavelength range (nm)				VIS	Optical comm.			Full		
					Max.	Min.	0.6 µm	1.31µm	1.55 µm	1.6 µm	range		
VIS	High resolution	AQ6373B	350 12	200	10	0.01 (400 to 470 nm) 0.02	±0.05				±0.2		
VIS Optical comm.	Wide band	AQ6374	350	1750	10	0.05	±0.05	±0.2	±0.05	±0.2	±0.2		
	High performance	AQ6370D	600	1700	2	0.02		±0.1	±0.01	±0.02	±0.1		
Optical comm.	Highest performance	AQ6380	1200	1650	2	0.005		±0.05	±0.005	±0.01	±0.05		
	High speed & Space saving	AQ6360	1200	1650	2	0.1		±0.1	±0.02	±0.04	±0.1		
exNIR	2 µm	AQ6375B	1200	2400	2	0.05		±0.5	±0.05	±0.1	±0.5		
MWIR	3 µm	AQ6376	1500	3400	2	0.1			±0.5	±0.5	±0.5		
IVIVVII	5 μm	AQ6377	190	5500	5	0.2					±0.5		

<sup>\*1:</sup> Purge feature for th AQ6360 are available on request.

# **Applications**

## Optical communications

- Emission spectrum evaluation of optical transceivers, LD chips, and LD modules
- OSNR measurement of WDM transmission signals
- Optical amplifier (EDFA) measurement
- Wavelength loss characteristics of optical fibers

### VIS

- Characterization of light sources used in biomedical and consumer products
- Color analysis of visible LED

# exNIR MWIR

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

VIS: Visible, exNIR: Extended near-infrared, MWIR: Mid-wavelength infrared







Close-in dynamic range (dB)						Level sensitivity (dBm)				Applicable fiber			Purge	High Jiffrad Supp	
Resolution minimum			Polution Resolution 2 nm 0.1 nm		VIS ≤1 μm	Optical comm. 1.3-1.6 µm	exNIR ≤ 2.2 µm	exNIR/MWIR ≥ 2.2 μm	SM	ପ୍ରା	Large core	Purge feature	Higher-order diffracted light suppression		
60 (±0.5 nm)		60 (±0.5 nm)			-80 typ. (500 to 1000 nm) -60 typ. (400 to 500 nm)				•	•	•		•		
60 (±1.0 nm)						-70 (400 to 900 nm)	-80			•	•	•	•	•	
15 1 nm)	58 (±0.2 nm)	45 (±0.1nm)	58 (±0.2 nm)	50 typ. (±0.2 nm)	67 typ. (±0.4 nm)	-60 (600 to 1000 nm)	-90			•	•	•			
15 05 nm)	60 (±0.1 nm)	55 (±0.1nm)	65 (±0.2 nm)	55 typ. (±0.2 nm)	67 typ. (±0.4 nm)		-85			•			•	•	
10 2 nm)	55 (±0.4 nm)			40 (±0.2 nm)	55 (±0.4 nm)		-80			•	•		*1		
15 4nm)	55 (±0.8 nm)						-62	-67 (1500 to 1800 nm) -70 (1800 to 2200 nm)	-67 (2200 to 2400 nm)	•	•		•	•	
15 0 nm)	55 (±2.0 nm)							-65 (1500 to 2200 nm)	-55 (2200 to 3200 nm)	•	•		•	•	
50 typ. (±5.0 nm)								-40 typ. (1900 to 2200 nm)	-50 typ. (2200 to 2900 nm) -60 typ. (2900 to 4500 nm)	•	•		•	•	
														• Available	

# 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 series is an ideal test platform for measuring and evaluating a variety of optical devices and transmission

Various measurement modules can be mounted in any combination on a single frame.

#### Frame and module lineup:

Products	Descriptions
Frame controllers	3 slots type, 9 slots type
Light source modules	High output level stability light sources, Grid TLS
Sensor modules	High power type, Large-diameter sensor head, dual sensor type
Optical attenuator modules	Standard type, with monitor output, with built-in monitor power meter
Optical switch modules	1×2, 2×2, 1×4, 1×8, and 1×16 channels
Modules for Optical Transceiver	_



\*For more information about the features and specifications of the each product, please refer to the brochure (AQ6380-01EN, 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.



https://tmi.yokogawa.com/

YMI-N-MI-M-E01

YOKOGAWA TEST & MEASUREMENT CORPORATION

YOKOGAWA CORPORATION OF AMERICA YOKOGAWA EUROPE B.V. YOKOGAWA TEST & MEASUREMENT (SHANGHAI) CO., LTD. YOKOGAWA ELECTRIC KOREA CO., LTD.

YOKOGAWA ENGINEERING ASIA PTE. LTD. YOKOGAWA INDIA LTD. YOKOGAWA ELECTRIC CIS LTD.

YOKOGAWA AMERICA DO SUL LTDA. YOKOGAWA MIDDLE EAST & AFRICA B.S.C(c) Phone: +1-800-888-6400 Phone: +31-88-4641429 Phone: +86-21-2250-7676 Phone: +82-2-2628-3810

Phone: +65-6241-9933 Phone: +91-80-4158-6396 Phone: +7-495-737-7868 Phone: +55-11-3513-1300 Phone: +973-17-358100

The contents are as of August 2021. Subject to change without notice. Copyright © 2021, Yokogawa Test & Measurement Corporation [Ed: 01/b] Printed in Japan, 108(KP) E-mail: tmi@us.yokogawa.com E-mail: t&m@nl.yokogawa.com

E-mail: tmi@cs.cn.yokogawa.com E-mail: TMI@kr.yokogawa.com E-mail: TMI@sg.yokogawa.com E-mail: tmi@in.yokogawa.com E-mail: info@ru.yokogawa.com E-mail: eproc@br.yokogawa.com E-mail: help.ymatmi@bh.yokogawa.com