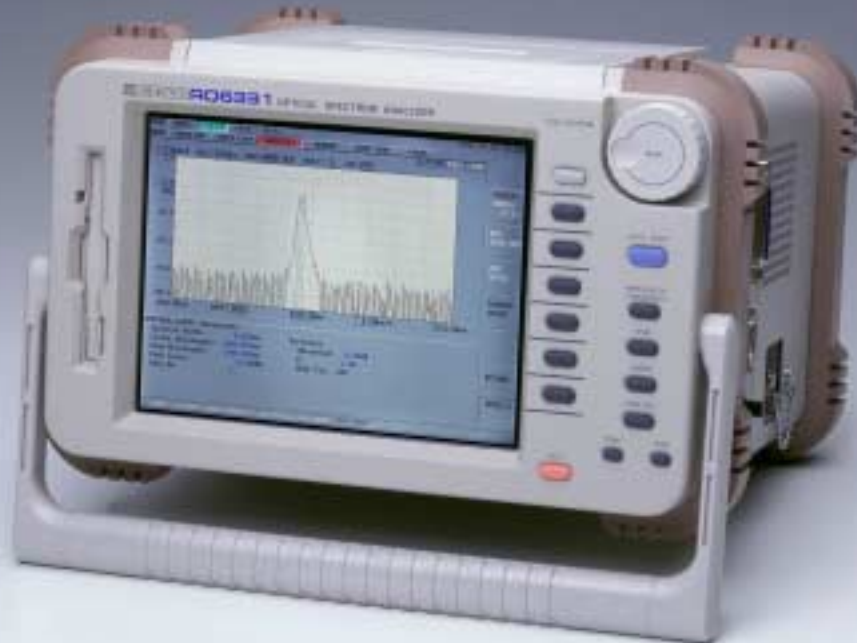


# Optical Spectrum Analyzer AQ6331

New portable optical spectrum analyzer with enhanced performance applicable to 50 GHz DWDM network testing



## General

The AQ6331 is a new portable optical spectrum analyzer (OSA) offering the advanced performance required for 50 GHz DWDM network testing, in both C-band and L-band.

The AQ6331 presents excellent wavelength resolution, accuracy and dynamic range which are equal to conventional bench-top OSAs for research and development applications.

Thanks to its unique rugged design and portability, the AQ6331 is an ideal tool for field applications such as construction, inspection and maintenance work. It can also be used in production and quality control processes (e.g. component test and measurement).

The AQ6331 is the only portable optical spectrum analyzer to bring scientific specs into field applications.

## Features

- Compact and lightweight: Approx. 10 kg
- Wavelength accuracy:  $\pm 0.02$  nm (1520-1580 nm)  
 $\pm 0.05$  nm (1580-1620 nm)
- Wavelength resolution: 0.05 nm (min.)
- Dynamic range: 55 dB (peak  $\pm 0.4$  nm)  
40 dB (peak  $\pm 0.2$  nm)
- Internal wavelength calibration  
With a built-in wavelength reference
- One-key-operation  
With a built-in user programming function
- Unique long-term measurement function  
To monitor DWDM system stability and performance
- Various built-in analysis functions



## Specifications

Applicable fiber	Single mode fiber (10/125 μm)	
Applicable Connector	FC-PC (Standard)	
Wavelength range	1200 to 1700 nm	
Wavelength accuracy <sup>1)</sup>	±0.02 nm (1520 to 1580 nm), < ±0.05 nm (1580 to 1620 nm), ±0.3 nm (1200 to 1700 nm)	
Wavelength linearity <sup>1)</sup>	±0.01 nm (1520 to 1580 nm), < ±0.02 nm (1580 to 1620 nm)	
Wavelength reproducibility <sup>1)</sup>	±0.005 nm (1 min.)	
Wavelength resolution <sup>1)</sup>	0.05 nm (Resolution setting: 0.05 nm, 1520 to 1620 nm) 0.1 nm (Resolution setting: 0.1 nm, 1520 to 1620 nm) Resolution setting: 0.05, 0.1, 0.2, 0.5, 1.0 nm Resolution accuracy: < ±5% (Resolution setting: ≤ 0.2 nm)	
Measurement level range <sup>1)</sup>	-90 to +20 dBm (1200 to 1600 nm, sensitivity: HIGH3) -80 to +20 dBm (1600 to 1700 nm, sensitivity: HIGH3)	
Level accuracy <sup>1), 2), 3)</sup>	±0.3 dB typ. (1550 nm, 1600 nm)	
Polarization dependency <sup>1), 3)</sup>	±0.05 dB (1550 nm, 1600 nm)	
Level linearity <sup>1), 3), 4)</sup>	±0.05 dB (Input power: 0 to -50 dBm, sensitivity: HIGH 1 to 3)	
Level flatness <sup>1), 3)</sup>	±0.1 dB (1520 to 1580 nm) ±0.2 dB (1520 to 1620 nm)	
Level reproducibility <sup>1), 3), 6)</sup>	±0.02 dB (1550 nm, 1600 nm)	
Dynamic range <sup>1), 5)</sup>	55 dB (1523 nm, peak ±0.4 nm, 0.05 nm resolution) 40 dB (1523 nm, peak ±0.2 nm, 0.05 nm resolution)	
Return loss	30 dB typ. (Optical input, 1550 nm, 1600 nm)	
Sweep time	Approx. 0.5 sec. (Span: 50 nm, sensitivity: NORMAL HOLD, number of sampling: AUTO, average: 1)	
Functions	Measurement condition	Auto-configuration, span, sensitivity (NORMAL HOLD/AUTO, HIGH 1/2/3), averaging, number of sampling (11 to 20001, AUTO), sweep between markers, 0-nm sweep, pulse light measurement
	Trace display	3 individual Traces (Max/Min, rolling average, data calculation), frequency/wavelength axis
	Data analysis	WDM, EDFA, PMD, SMSR, search (Peak, Bottom), spectral width, notch-width, delta-marker, line marker
	Others	Program, long-term measurement, wavelength self-calibration
Memories	FDD (3.5-inch 2HD), Internal memory (2MB)	
Data output	Printer	Built-in high-speed printer
Interfaces		GP-IB, RS-232C, Keyboard (IBM compatible), Mouse (PS/2), Video (SVGA), Printer (Centronics), PCMCIA (1 x Type 3 or 2 x Type 2)
Display		8.4-inch color LCD (800 x 600 dots)
Power requirements		AC100 to 120 V, AC200 to 240 V, 48 to 63 Hz, approx. 100 VA
Environmental conditions		Operating temperature: 0 to 50°C Storage temperature: -20 to 60°C Humidity: 90% or less (no condensation)
Dimensions and mass		Approx. 315(W) x 200(H) x 255(D) mm, approx. 10 kg

### Notes

- 1) SMF10/125 μm, after 2-hour warm-up, 10 to 35°C
- 2) Input level: -30 dBm, sensitivity: HIGH 1 to 3
- 3) Resolution: 0.1 nm or more
- 4) Input level: -50 to 0 dBm, sensitivity: HIGH 1 to 3
- 5) 1523 nm, resolution 0.05 nm, sensitivity: HIGH 1 to 3
- 6) Input level: -23 dBm, 1 min.

## Option

AQ9441(SC) Connector Adapter  
AQ9441(ST) Connector Adapter

*Specifications are subject to change without notice.*

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