

YOKOGAWA

AQ6370D

The Yokogawa AQ6370D is a benchtop optical spectrum analyzer (OSA) designed for high-precision testing of fiber optic communications in the 600 nm to 1700 nm wavelength range. It offers outstanding resolution, dynamic range, and analysis capability for active optical components and systems. This datasheet captures the technical parameters for the Standard (AQ6370D-10) and High-Performance (AQ6370D-20) models.

SPECIFICATIONS

General

Interfaces	GPIB, LAN (10/100Base-TX), USB 1.1 / 2.0 (Type-A x 4), VGA output, Trigger In/Out, Analog Out
Display	10.4-inch color LCD (800 x 600 pixels)

Physical

Power Supply	100 to 240 VAC, 50/60 Hz, approx. 100 VA (max. 150 VA)
Operating Temperature	5 to 35 °C °C
Dimensions (W×H×D)	426 (W) x 221 (H) x 459 (D) mm mm
Weight	19 kg kg

Wavelength Specifications

Wavelength Range	600 to 1700 nm
Wavelength Accuracy (High Performance, C Band)	±0.01 nm (1520 to 1580 nm)
Wavelength Accuracy (Standard, C+L Band)	±0.04 nm (1520 to 1620 nm)
Wavelength Resolution Settings	7 settings: 0.02, 0.05, 0.1, 0.2, 0.5, 1.0, 2.0 nm
Minimum Sampling Resolution	0.001 nm
Wavelength Accuracy (Full Range)	±0.1 nm (600 to 1700 nm)
Wavelength Resolution Accuracy	±15% (0.05 to 0.2 nm, 1520 to 1580 nm), ±10% (0.5 to 2.0 nm, 1520 to 1580 nm)

Optical Power / Level Specifications

Level Range	+20 to -90 dBm
Level Sensitivity Settings	7 settings
Maximum Safe Input Level	+25 dBm (total input power)
Maximum Input Power	+20 dBm (per channel)
Level Accuracy	±0.4 dB (at 1310 / 1550 nm, input -20 dBm)
Level Flatness	±0.1 dB (1520 to 1580 nm)
Level Linearity	±0.05 dB (input level -50 to 0 dBm)
Stray Light Suppression Ratio	80 dB typical (at 1550 nm, 0.1 nm resolution)
Dynamic Range (High Performance Model)	78 dB typical (at ±1.0 nm from peak)
Polarization Dependency	±0.05 dB (at 1550 nm)

Measurement and Sweep Speeds

Sweep Time (100nm Span)	0.2 s
Number of Sampling Points	101 to 50001
Double Speed Mode	Supported

Optical Interface and Fibers

Applicable Optical Fiber Types	SM (9/125 μm), GI (50/125 μm, 62.5/125 μm)
Optical Return Loss	35 dB or more (with SM fiber)
Optical Alignment Function	Built-in automatic optical alignment function
Optical Input Connector Type	FC/PC or SC/PC (user-exchangeable)

Built-in Analysis & Software Functions

Data Logging Function	Up to 10,000 points per channel with timestamps
Gate Sampling Function	Supported (for recirculating loop testing)
Resolution Calibration Function	Supported (with external light source)
APC Connector Level Correction	Supported
DFB-LD Analysis	Supported
FP-LD Analysis	Supported
LED Analysis	Supported
WDM (OSNR) Analysis	Supported
Optical Fiber Amplifier (EDFA) Analysis	Supported
Spectral Width Analysis	Supported
PMD Measurement	Supported

Data Storage and Management

External Storage Support	USB storage (FAT32/FAT16)
Supported File Formats (Data)	CSV, Text, Binary
Supported File Formats (Graphics)	BMP, PNG

Environmental and Compliance

Operating Humidity Range	20 to 80% RH (no condensation)
Laser Safety Class	Class 1

Power and Level Specifications

Close-in Dynamic Range (Standard Model, ± 0.1 nm)	37 dB (at 1523/1550/1600 nm, resolution 0.02 nm)
Close-in Dynamic Range (Standard Model, ± 0.2 nm)	50 dB (53 dB typical, at 1523/1550/1600 nm, resolution 0.02 nm)
Close-in Dynamic Range (Standard Model, ± 0.4 nm)	60 dB (62 dB typical, at 1523/1550/1600 nm, resolution 0.02 nm)
Close-in Dynamic Range (High Performance Model, ± 0.1 nm)	45 dB (at 1523/1550/1600 nm, resolution 0.02 nm)
Close-in Dynamic Range (High Performance Model, ± 0.2 nm)	55 dB (58 dB typical, at 1523/1550/1600 nm, resolution 0.02 nm)
Close-in Dynamic Range (High Performance Model, ± 0.4 nm)	62 dB (65 dB typical, at 1523/1550/1600 nm, resolution 0.02 nm)

Power and General

Power Consumption	100 VA or less
Warm-up Time	Approx. 1 hour

Environmental Specifications

Storage Temperature Range	-10 to 50 °C
Storage Humidity Range	80% RH or less (no condensation)

Interfaces & Control

GP-IB Emulation Modes	AQ6317, AQ6315
Trigger Ports	Yes (TTL level, BNC connectors for trigger input and output)

Analysis Functions

Other Analysis Functions	Optical Filter (BPF/Notch/Co-pol/Cross-pol), Color Analysis, Go/No-Go Judgment
Built-in Program Function	Up to 64 programs (200 steps per program)
Multi-peak / Multi-bottom Analysis	Up to 999 peaks or bottoms can be detected

Level Measurement

Level Resolution	0.01 dB
Level Scale	0.1 to 10 dB/div, Linear

Wavelength Measurement

Wavelength Display Span	0.1 nm to 1100 nm, and 0 nm
-------------------------	-----------------------------

Interface & Connectivity

Ethernet Port	10/100Base-TX (RJ-45)
USB Port	USB 2.0 (Type A x 2, Type B x 1)
GP-IB Port	IEEE-488.2
External Display Output	VGA (D-sub 15-pin)

Calibration & Light Sources

Optical Alignment Source	Built-in LED light source (standard)
Reference Wavelength Source Option	Option /REF (built-in Acetylene gas cell)

Optical Inputs

Optical Connector Adapter Type	User-exchangeable (FC, SC, or ST)
--------------------------------	-----------------------------------

General Specifications

Operating Altitude	Up to 2000 m
--------------------	--------------

Power Supply

AC Power Input	100 V to 240 V AC, 50/60 Hz
----------------	-----------------------------

TECHNOLOGY

Optical Spectrum Analysis

APPLICATIONS

Fiber Optics Communication Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.