ADVANTEST

Q8381A

The Advantest Q8381A is a high-performance optical spectrum analyzer designed to measure a wide wavelength range from 350 to 1750 nm. It features high level measurement accuracy, exceptionally low polarization dependence, and specialized functions such as pulse light measurement and luminosity compensation, making it ideal for both display LEDs and optical communication devices.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488)
Display	9-inch CRT display

Physical

Power Supply	100 / 120 / 220 / 240 V AC (selectable), 50/60 Hz, <= 150 VA
Operating Temperature	0 to 40 °C °C
Dimensions (W×H×D)	424 mm (W) x 222 mm (H) x 450 mm (D) mm
Weight	25 kg kg

Wavelength Specifications

Wavelength Range	350 to 1750 nm
Wavelength Accuracy	+/- 1 nm
Wavelength Linearity	+/- 0.5 nm (1.1 to 1.6 um)
Wavelength Span Range	0.2 nm to 1400 nm, and 0 nm

Optical Power and Amplitude

Power Measurement Range	-85 to +10 dBm (1.1 to 1.6 um)
Maximum Input Power	+10 dBm
Power Level Accuracy	+/- 1.5 dB
Polarization Dependency	+/- 0.1 dB or less (1.1 to 1.6 um)
Dynamic Range	40 dB (at +/- 1 nm), 50 dB (at +/- 2 nm)

Resolution and Bandwidth

Resolution Bandwidth (FWHM)	0.1 nm to 5 nm (0.1, 0.2, 0.5, 1.0, 2.0, 5.0 nm)

Measurement Speed and Sweep

Sweep Time	0.5 s or less (for 100 nm span)
Measurement Modes	Single, Continuous, Average

Optical Interfaces

Optical Input Connector Types	FC-PC (standard)
Compatible Fiber Types	50/125 um GI fiber, 10/125 um SM fiber

Analysis and Application Software

Pulse Light Measuring Function	Built-in
Luminosity Compensation Display	Built-in
Built-in Analysis Functions	Automatic optimum measurement condition setting, automatic peak search, half-value width measurement
Spectral Width Analysis	Envelope method, RMS method, Threshold method

External Connectivity and Control

GPIB Interface	IEEE-488 standard

Power and Electrical

AC Input Voltage Range	100 V / 120 V / 220 V / 240 V AC
AC Input Frequency Range	50 Hz / 60 Hz
Power Consumption	150 VA or less

Physical Characteristics

Display Type	9-inch CRT

Environmental

Operating Humidity Range	85% RH or less (no condensation)

TECHNOLOGY

Monochromator-based Spectroscopy

APPLICATIONS

Spectral analysis of LEDs, laser diodes (LDs), and optical communication components