Specifications

Functions

Measurement principle:	Using the conversion characteristics between optical frequency and intensity in the built-in optical-fiber-type Mach-Zehnder interferometer, the instrument converts the dynamic chirp (optical frequency modulation) into a change in optical power FM. By controlling the discrimination point of the interferometer, FM is either added to or subtracted from the intensity IM of the optical input signal.
Polarization compensation:	Automatic polarization compensation by the internal optical-fiber-type polarization controller
Built-in optical amplifier with automatic gain adjustment option (OPT7607+10):	Available as an option, the Q7607 has a built-in optical amplifier with automatic gain adjustment. The optical output power is approx. 0 dBm, regardless of the optical input power.

Performance Specifications[*1)]

Wavelength measurement range:	Q7607; 1510 to 1610 nm Q7607+10; 1530 to 1610 nm
Optical input power range:	-10 to 10 dBm
Frequency conversion accuracy:	within ±15%
FM demodulation coefficient (50 G/10 G)[*2)]:	P x 0.021/GHz / P x 0.042/GHz
Free Spectral Range (50 G/10 G):	300 GHz ±15 GHz / 150 GHz ±15 GHz
Demodulation band width (50 G/10 G)[*3)]:	100 Hz to 100 GHz / 100 Hz to 50 GHz
Deviation of demodulation frequency (50 G/10 G):	135 GHzpp or less / 65 GHzpp or less
Insertion loss:	Q7607; 13 dB or less
Optical output power:	Q7607+10; -3 to 0 dBm[*4)]
Input light polarization compensation:	Automatically controlled

Input/Output Specifications

Optical input/output:	FC/PC connector (changeable to SC or ST type)
GPIB:	In accordance with IEEE488-1978
Optical remote interlock:	BNC connector (for OPT7607+10/10A)

General Specifications

Operating environment:	Ambient temperature; 0 to +40°C Relative humidity; 85% max. (no condensation)
Storage environment:	Ambient temperature; -20 to +60°C Relative humidity; 90% max. (no condensation)
Power supply:	AC100–120 V, AC220–240 V, 50/60 Hz, 100 VA or less Automatic switching between the 100 and 200 V systems
Dimensions:	Approx. 132 (H) x 424 (W) x 500 (D) mm (Approx. 5.2 (H) x 16.7 (W) x 19.7 (D) in.)
Mass:	13 kg (28.7 lbs) or less

Options

Built-in Optical Amplifier:	OPT7607+10
Retrofit Optical Amplifier:	OPT7607+10A

Accessory (supplied with the system)

Chirp Measurement Software:	PQ76000402-CD

Separately Sold Accessories

FC connector adapter:		A08161
SC connector adapter:		A08162
ST connector adapter:		A08163
Rack mount kit:	EIA, with Front handles	A02708
	JIS, with Front handles	A02709
	EIA, without Front handles	A02718
	JIS, without Front handles	A02719

*[*1)] At 23 ±5°C*

*[*2)] P: optical average power*

*[*3)] 100 MHz as standard, 1 dB down*

*[*4)] Total output of optical power*

Please be sure to read the product manual thoroughly before using the products. Specifications may change without notification.