Q8155

NEW

Q8155
Variable Wavelength Light Source

■ Overview

This measuring instrument is used to produce variable wavelength light with high accuracy and wavelength resolution in the C/L band used in WDM optical communication.
This instrument is suitable for evaluating the wavelength characteristics of the optical narrow band-pass filter of passive optical elements, especially Arrayed-Waveguide Gratings (AWG) and Fiber Bragg Gratings (FBG) used in WDM optical communication. With a high-sensitivity optical power meter, the wavelength characteristics of these optical passive elements can be measured with high accuracy and resolution over a wide dynamic range.

- Wide variable wavelength range : 1525 nm to 1630 nm
- High wavelength accuracy : ±10 pm
- High wavelength resolution : 0.1 pm
- High output : +3 dBm (1540 nm to 1620 nm)
- Low noise : Side mode suppress rate of 50 dBc, RIN of -160dB/Hz
- Wavelength sweep function
- Optical output variable attenuation function

For Loss Characteristic Measurement of an Optical Fibers and Components / White Light Source with Wide Bandwidth and High Stability

Q8155

Items		Description
Wavelength range		1525 to 1630 nm
Wavelength resolution		0.1 pm
Absolute wavelength accuracy		±10.0 pm
Relative wavelength accuracy		±7 pm
Wavelength repeatability		±5 pm
Wavelength stability (1 hour, constant ambient temperature)		± 0.8 pm or less
Variable speed (typ., 1/10/100 nm step)		600 ms/800 ms/2.8 s*1
Line width (typ.)		100 kHz*2
Output power		+3 dBm or more (1540 to 1620 nm) ≥ +1 dBm or more (1525 to 1630 nm)
Minimum output power		-30 dBm
Power stability (1 hour, constant ambient temperature)		±0.03 dB
Power repeatability (typ.)		±0.01 dB
Power linearity		±0.1 dB
Power flatness (against wavelength)		±0.2 dB (APS function is on) ±0.4 dB (APS function is off)
Side mode suppress rate (typ.)		≥50 dBc
Relative intensity noise (RIN, typ.)		-160 dB/Hz
Optical modulation function	Internal low-frequency modulation	200 Hz to 300 kHz, modulation of approx. 30%
	External high-frequency modulation	10 to 120 MHz
Optical output monitoring function		Output power can be monitored on a display screen.
Optical output variable attenuation function		Optical output can vary up to -30 dBm.
Optical output	Output fiber	Polarization maintaining fiber (panda)
	Polarization	Linear polarization, key-direction of output connector, quenching ratio 20 dB (typ.)
	Connector (Switchable by user)	FC type (standard) ST type, SC type (with optional accessory)
Input/output interface	GPIB	IEEE488-1978
	Step trigger signal output	BNC, TTL level
	External high-frequency modulation input	BNC, input impedance of 50Ω, maximum input power of +10 dBm
General specifications	Operating environment	+10°C to +35°C, 85%RH max. (without condensation)
	Storage environment	-10°C to +50°C, 85%RH max. (without condensation)
	Power supply	AC 100 V to 240 V, 50/60 Hz, 200 VA max.
	Dimensions	Approx. 350 (W) × 132 (H) × 450 (D) mm
	Mass	15 kg max.

*1 : When Hi Speed is on and APS is off.
*2 :This is about 10 MHz when Hi Speed is on. This value can be changed up to 50 MHz using an internal low-frequency modulation function.

Accessories (Options)

Product name	Model
Optical Connector adapter	FC connector adapter : A08161 SC connector adapter : A08162 ST connector adapter : A08163