

AE8807 Optical Spectrum Analyzer



Brought to you by Deviser Instruments, the AE8807 is an optical spectrum analyzer that covers a long wavelength range from 1200 to 2500nm. It not only covers telecommunication wavelengths but also the SWIR region, which is often used for environmental sensing, medical, biological and industrial laser (2 μ m) applications. This instrument serves as an indispensable tool for research, development, and manufacturing of optical devices spanning from communication wavelength range to the 2.5 μ m wavelength range.

Key Features

- Wavelength Range: 1200 to 2500 nm
- Wavelength resolution settings: 0.05 nm to 2 nm
- Wide measurable level range: -70 dBm to +20 dBm
- Close-in dynamic range: 55 dB
- Free space optical input, guarantee maximum coupling efficiency and maintenance-free, and high measurements repeatability

Applications

- Mid-infrared laser spectra measurement
- Optical passive devices testing
- Characterization of Lasers used in Environment sensing applications
- Characterization of Lasers used in Medical/Bio applications
- Material composition analysis

Specifications

Model	AE8807	
Optical Spectrum Measurement Specifications		
Applicable fiber	SM (9.5/125 μ m), MMF (50/125 μ m, 62.5/125 μ m)	
Wavelength range	1200nm to 2500nm	
Span	0.5nm to 1300nm,0nm	
Wavelength accuracy	\pm 0.05 nm (1520 to 1580 nm) \pm 0.1 nm (1580 to 1620 nm) \pm 0.5 nm (Full range)	
Wavelength repeatability	\pm 0.015 nm (1 min.)	
Wavelength resolution setting	0.05nm, 0.1nm, 0.2nm, 0.5nm, 1nm, 2nm	
Min. sampling resolution	0.002nm	
Number of sampling	101 to 100001	
Optical Power Measurement Specifications		
Level sensitivity setting	NORM_HOLD,NORM_AUTO,NORMAL,MID,HIGH1,HIGH2,HIGH3	
Level sensitivity	-70dBm (1800 to 2200nm) -67dBm(1500 to 1800nm, 2200 to 2400nm) -62dBm (1200 to 1500nm) (Sensitivity: HIGH1-3)	
Maximum safe input power	+25 dBm (Total input power)	
Maximum input power	+20 dBm (Per channel, Full wavelength range)	
Level accuracy	\pm 1.0 dB(1550 nm, Input level: -20 dBm, Sensitivity: MID, HIGH1-3)	
Level linearity	\pm 0.05 dB(Input level: -30 to +10 dBm, Sensitivity: HIGH1-3)	
Dynamic range	45 dB (Peak \pm 0.4 nm, Resolution: 0.05 nm), 55 dB (Peak \pm 0.8 nm, Resolution: 0.05 nm) (1523 nm, Sensitivity: HIGH1 to 3)	
Technical Specifications		
Optical connector	FC or SC type	
Sweep time	0.1s (Level sensitivity setting :MID, Span: 30nm, Resolution:0.1nm, Number of sampling :501,2x)	
Warm-up time	Minimum 30min.	
Display	10.1 inch TFT LCD touchscreen (Resolution: 1280 \times 800)	
Interface	USB2.0 \times 5, USB 3.0, VGA, GP-IB (Option) RJ45 LAN port (10M/100M/1000M), RS232-DB9	
Environmental conditions	Performance guarantee temperature: +20 to +26 $^{\circ}$ C Operating temperature: +5 to +35 $^{\circ}$ C Storage temperature: - 10 to +50 $^{\circ}$ C, Humidity: 20 to 80%RH (no condensation)	
Power requirements	AC	100-240V 1.7A 50~60Hz