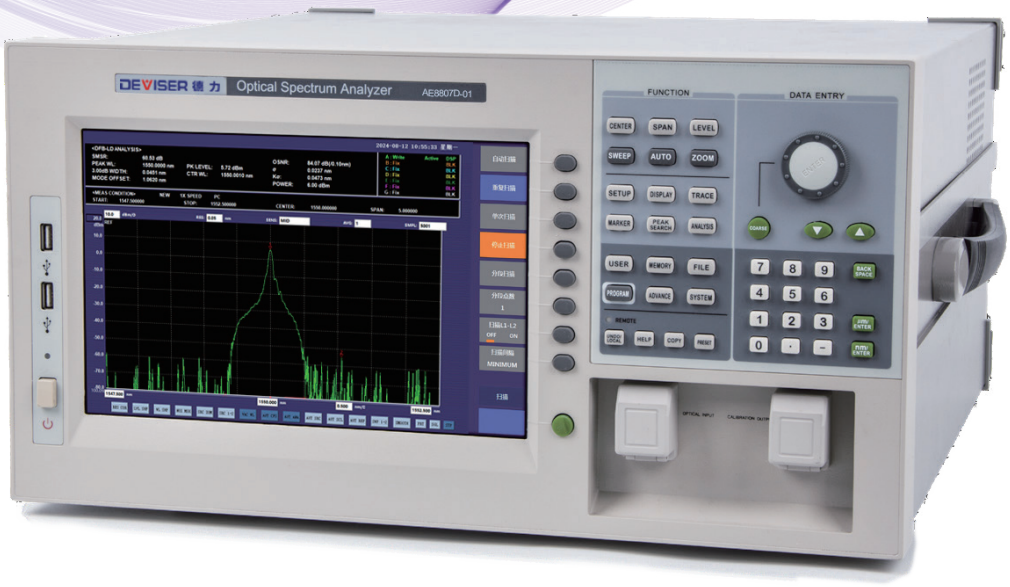
AE8807D-01 Optical Spectrum Analyzer



Brought to you by Deviser photoelectric, the AE8807D-01 is an optical spectrum analyzer that covers a long wavelength range from 1200 to 2400nm.It not only covers telecommunication wavelengths but also the SWIR region, which is often used for environmental sensing, medical, biological and industrial laser (2μm) applications. This instrument serves as an indispensable tool for research, development, and manufacturing of optical devices spanning from communication wavelength range to the 2.4μm wavelength range.

Key Features

- Wavelength Range: 1200 to 2400 nm
- Wavelength resolution settings: 0.05 nm to 2 nm
- Wide measurable level range: -67 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
- Environmental sensing
- Characterization of Lasers used in Medical/Bio applications
- Material composition analysis

Specifications

Model	AE8807D-01	
Optical Spectrum Measurement Specifications		
Applicable fiber	SM(9.5/125μm)、MMF(50/125μm、62.5/125μm)、Large core: up to 400μm	
Wavelength range[1]	1200 to 2400nm	
Resolution bandwidth	0.05 to 2nm	
Wavelength resolution setting[1,2]	0.05nm、0.1nm、0.2nm、0.5nm、1nm、2nm	
Wavelength accuracy[1.2.5]	1520 to 1580nm ±0.05nm; 1580 to 1620nm ±0.1nm; Entire wavelength range ±0.5nm	
Wavelength repeatability[1.2]	±0.015nm (1 min.)	
Min. sampling resolution1	0.001nm	
Wavelength sampling points	101 to 50001，AUTO	
Optical Power Measurement Specifications		
Level sensitivity[2.3.6]	NORM_HOLD,NORM_AUTO,NORMAL,MID,HIGH1,HIGH2,HIGH3	
Level sensitivity	-67dBm(1800 to 2200nm) -64dBm(1500 to 1800nm,2200 to 2400nm) -60dBm(1300 to 1500nm) Sensitivity:HIGH3	
Maximum input power[2.3]	+20dBm(Total input power)	
Level accuracy[2.3.4.8]	±1.0dB (1550nm,Input level:-20dBm,Sensitivity:MID，HIGH1-3)	
Level linearity[2.3]	±0.08dB (Input level:-30 to +10dBm,Sensitivity:HIGH1-3)	
Optical return loss	>35dB(APC)	
Dynamic range[1.2]	Peak±0.4nm 45dB(Resolution:0.05nm) Peak±0.8nm 55dB(Resolution:0.05 nm)(1523nm,Sensitivity:HIGH1-3)	
Level sensitivity setting	NORM_HOLD，NORM_AUTO，NORMAL，MID，HIGH1，HIGH2，HIGH3	
Wavelength reference source	Option	
Sweep time[1.6.7]	0.3s (Sensitivity:MID,Span:30nm,Resolution:0.1nm,Sampling:501,2x)	
Warm-up time	Minimum 1 hour	
General Specificatons		
Display	10.1 inch TFT LCD touchscreen (Resolution: 1280×800)	
Interface	USB 2.0×3，USB 3.0	
	RJ45 LAN port (10M/100M/1000M),RS232-DB9	
GP-IB	Option	
Operating temperature	+5 ~ +35°C	
Storage temperature	-10 ~ +50°C	
Power requirements	AC	100-240V 1.7A 50~60Hz

1. Horizontal axis scale: In wavelength display mode.
2. 9.5/125μm single mode fiber, after warm-up of 2 hours, after alignment with a built-in wavelength reference light source, when the purge gas is not used.
3. Vertical scale: absolute value level display mode, Resolution setting: 0.1nm or more.
4. When using 9.5/125μm single mode fiber.
5. After wavelength calibration using a built-in wavelength reference light source, Sampling resolution: ≦ 0.003nm, Sensitivity: MID, HIGH1-3.
6. Pulse light measurement mode: OFF.
7. Span 100nm or less, Wavelength sampling points: 1001, Averaging times: 1.
8. Temperature condition changes to 23±3° C at 0.1nm resolution setting.