

Optical Spectrum Analyzer AE8607D

Key Benefits

- Single mode and multi-mode wavelength range from 800nm to 1650nm.
- Wide range of power measurement from +23dBm to -86dBm and wide dynamic range up to 75dB typical
- Outstanding wavelength & power measurement accuracy with wavelength resolution up to 0.02nm and built-in calibration source(Option)
- WDM, Laser, and EDFA test modes
- 10.1" 1280x800 TFT touchscreen LCD
- Multiple data storage and interface – LAN (RJ-45), USB, RS232, GP-IB(Option) ... etc.
- Customizable auto-test scenario



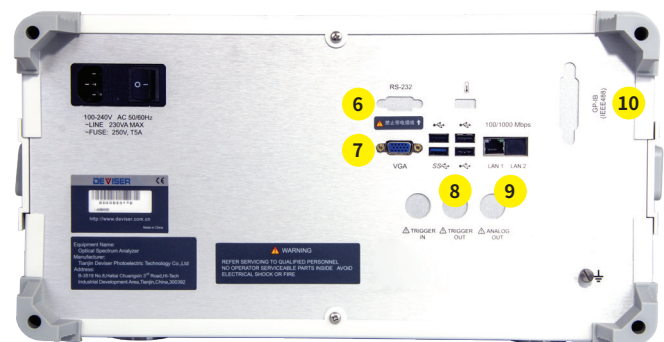
Overview

Brought to you by Deviser Instruments Inc, the AE8607D is a high-precision diffraction-grating, high-resolution optical spectrometer with wavelength range of 800nm to 1650nm. The 10.1" LCD touchscreen and concise graphical user interface of AE8607D offer the easiest way to handle optical spectrum analysis.

AE8607D provides a wide selection of test methodology, including laser spectrum scans (DPB, FP), WDM system testing, EDFA system testing, transmittance and drift testing, which are essential for in-field and factory applications. The AE8607D offers exceptional stability and reliability, high-speed spectral sweeping, and multiple ways to export and analyze measurement data. It's the ideal instrument for fast and precise optical spectral testing to satisfy long-term investment with the best cost performance value.

A wealth of functions and connection interfaces

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|--|----------------|----------|--------|-------------------|
| 1. 10.1 inch TFT LCD touchscreen | 3. Rotary knob | 5. USB | 7. VGA | 9. Ethernet |
| 2. Optical Input(Left)/Calibration Output(Right) | 4. USER button | 6. RS232 | 8. USB | 10. GB-IB(Option) |



Specifications

Model	AE8607D-11	AE8607D-22
Optical Spectrum Measurement Specifications		
Applicable fiber	SM(9.5/125 μ m), MMF(50/125 μ m, 62.5/125 μ m)	
Wavelength range ¹	800 ~ 1650nm	
Wavelength resolution bandwidth	0.03 ~ 2nm	
Wavelength resolution setting ^{1,2}	0.03nm, 0.05nm, 0.1nm, 0.2nm, 0.5nm, 1nm, 2nm	
Wavelength resolution bandwidth accuracy ^{1,2,5}	$\pm 5\%$ (1450 to 1620nm, Resolution setting: ≥ 0.1 nm, after performing the Resolution Calibration function, at the wavelength of resolution calibration)	
Wavelength accuracy ^{1,2,5}	1520 to 1620 nm ± 0.01 nm 1450 to 1520 nm ± 0.02 nm entire wavelength range ± 0.06 nm	
Wavelength repeatability ^{1,2}	± 0.008 nm (1 min.)	
Wavelength linearity ^{1,2,5}	± 0.01 nm (1520 to 1580 nm) ± 0.02 nm (1450 to 1520 nm, 1580 to 1620 nm)	
Min. sampling resolution ¹	0.001nm	
Optical Power Measurement Specifications		
Level sensitivity ^{2,3,4,7}	-86dBm(1300-1620nm, resolution ≥ 0.05 nm, sensitivity: HIGH3) -70dbm(1000-1300nm, resolution ≥ 0.05 nm, sensitivity: HIGH3) -50dBm(800-1000nm, resolution ≥ 0.05 nm, sensitivity: HIGH3)	
Maximum input power ^{2,3}	+23dBm(Per channel, full range)	
Maximum safe input power ^{2,3}	± 25 dBm(Total input power)	
Level accuracy ^{2,3,4,6}	± 0.4 dB(1310/1550nm, input level: -20dBm)	
Level linearity ^{2,3}	± 0.08 dB(input level: -50~+10dBm, sensitivity: HIGH1/HIGH2/HIGH3)	
Level flatness ^{2,3,6}	± 0.1 dB(1520 to 1580nm), ± 0.2 dB(1450 to 1520nm, 1580 to 1620nm)	
Wavelength sampling points	101 to 50001, AUTO	
Optical return loss ¹¹	>35dB (with angled-PC connector)	
Polarization dependence ^{2,3,6}	± 0.08 dB(@1550nm)	
Dynamic range ^{1,2,8}	Peak ± 0.1 nm 45dB(resolution: 0.02nm) Peak ± 0.4 nm 70dB(resolution: 0.05nm) Peak ± 1.0 nm 75dB(resolution: 0.05nm)	
Level sensitivity setting	NORM_HOLD, NORM_AUTO, NORMAL, MID, HIGH1, HIGH2, HIGH3	
Stray-light suppression ratio ^{7,10}	75dB	
Sweep time ^{1,7,9}	0.3s(NORM_AUTO)、0.7s(NORMAL)、s(MID) 3.5s(H1)、18s(H2)、s(H3) (SPAN ≤ 100 nm Sampling Points 1001)	
Warm-up time	Minimum 1hour	
General Specifications		
Display	10.1 inch TFT LCD touchscreen (Resolution: 1280 \times 800)	
Interface	USB 2.0 \times 3, USB 3.0	
	RJ45 LAN port (10M/100M/1000M), RS232-DB9	
GP-IB	Option	
Data storage	Internal storage: 128GB hard-drive File types: CSV, Binary, BMP	
Operating temperature	+5 to +35 $^{\circ}$ C	
Storage temperature	-10 to +50 $^{\circ}$ C	
Power supply	AC	100-240V 1.7A 50~60Hz
Dimensions	427 x 221 x 448 (mm)	
Weight	20kg	
Performance quadrate temperature	+18 ~ +28 $^{\circ}$ C	
Application	CW	CW, PL

1. Horizontal axis scale: In wavelength display mode.

2. 9.5/125 μ m single mode fiber (PC polishing), after warm-up of 1 hours, after alignment with a built-in wavelength reference light source or single longitudinal mode laser (wavelength: 1520 to 1560nm, wavelength stability: ± 0.01 nm or less).

3. Vertical scale: absolute value level display mode, Resolution setting: 0.05nm or more, Resolution correction: OFF.

4. When using 9.5/125 μ m single mode fiber.

5. After wavelength calibration using a built-in wavelength reference light source or single longitudinal mode laser.

6. With the resolution setting of 0.05nm, at ambient temperature of $23 \pm 3^{\circ}$ C.

7. High dynamic mode: OFF, Pulse light measurement mode: OFF, Resolution correction: OFF.

8. 1523nm, High dynamic mode: SWITCH, Resolution correction: OFF.

9. Span 100nm or less, Wavelength sampling points: 1001, Averaging times: 1.

10. When applying a He-Ne laser (1523nm), Resolution: 0.1nm, 1520nm to 1620nm (excluding Peak ± 2 nm).

11. When using the signal mode fiber with our standard Angled PC connector, it is 15dB(Typ.) when using the PC connector.