AE8500
Optical Spectrum Analyzer

Key Benefits

- Analyze a full range of communication wavelengths and spectrum channels (1250 ~ 1650nm)
- Test transmission characteristics of optical devices
- Outstanding wavelength & power accuracy, with λ resolution up to 0.06nm
- Wide selection of test modes - including WDM, OLS, and EDFA - are perfect for applications from field to factory
- Diagnose and monitor key parameters of DWDM signals to check system stability
- View all DWDM channel characteristics at 50 / 100 GHz intervals
- Store and transfer data with LAN, USB, SD, and more

Overview

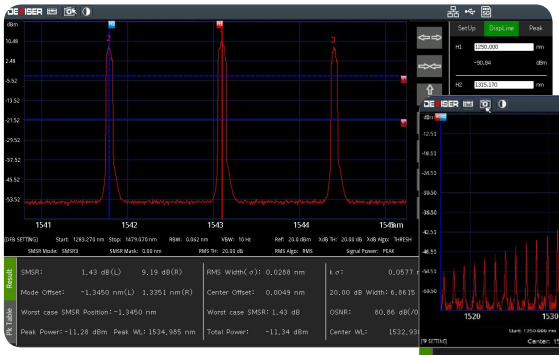
Brought to you by Deviser Instruments, Inc., the AE8500 is a high-precision diffraction-grating OSA with a wavelength range of 1250 ~ 1650nm and power sensitivity down to 70dBm.

Users can test optical signals with excellent accuracy, and the 12.1" LCD touchscreen and concise UI design make the AE8500 easy to master. It also provides a powerful suite of test modes, including WDM system testing, EDFA, transmittance and drift testing, and semiconductor laser spectrum scans (DFB & FP).

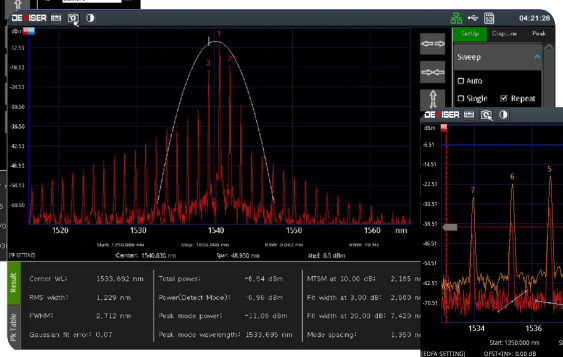
The AE8500 offers exceptional stability and reliability, high-speed spectral sweeping, and multiple ways to output and analyze your data. It's the ideal tool for CWDM/DWDM and FTTH project maintenance.

Main Features

- FTTH network deployment and maintenance
- Distributed feedback laser (DFB) and Fabry-Pérot (FP)
  - Analyze single- or multi-λ input: power, bandwidth, drift, SMSR, OSNR, and mode spacing
- Erbium-doped fiber amplifier (EDFA)
  - Before/after optical amplification; measure PSSE, PASE, gain, and noise factor
- CWDM/DWDM project acceptance and maintenance
  - Resolution BW up to 60 picometers to test closely-spaced channels - critical for DWDM test aggregation
  - Measure channel power, offset, and OSNR



DFB Mode



FP Mode

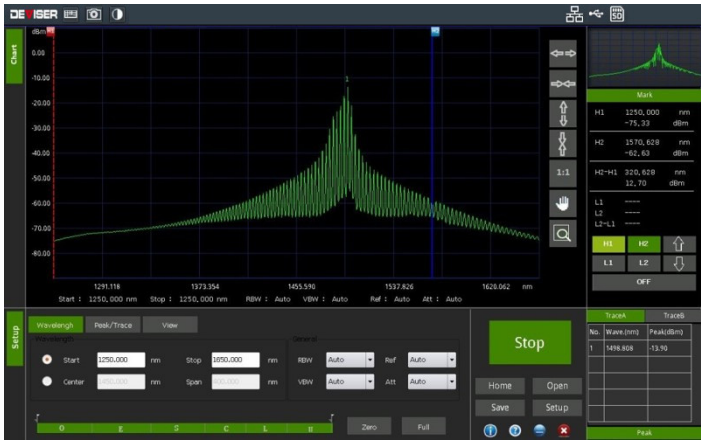
EDFA Mode

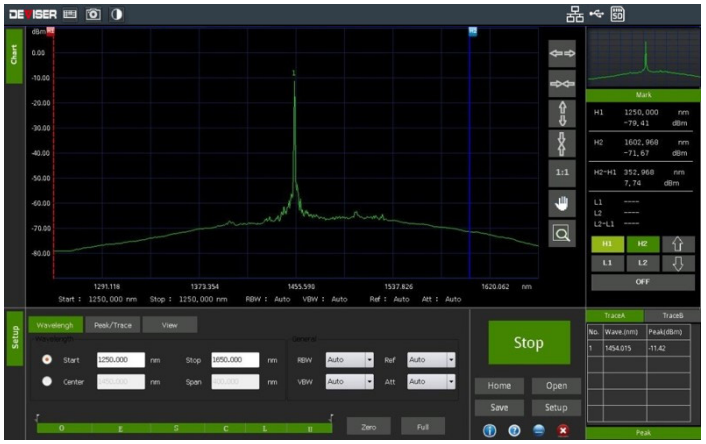
Spectrum Analysis

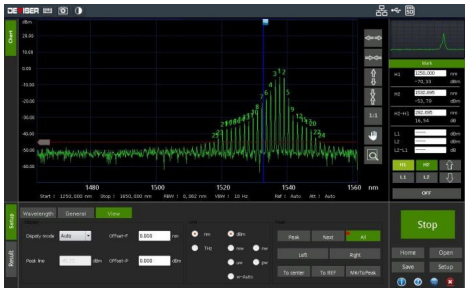
The AE8500's main OSA mode shows the spectrum trace in split-screen format. View detailed peaks and valleys in the central window, with the overall waveform in the top-right for the perfect balance of broad and narrow analysis.

Additional Tests

The AE8500 offers a broad suite of optical measurement modes, granting technicians a complete picture of the test signal. These include EDFA (erbium-doped fiber amplifier), FP-LD (Fabry-Pérot laser diode), and DFB (distributed-feedback laser diode).







Specifications

OSA Technical Parameters		
Wavelength range		1250 ~ 1650nm
Resolution bandwidth		0.06nm
Resolution settings		0.06, 0.1, 0.2, 0.5, 1, 2nm
Wavelength accuracy		± 0.05nm
Wavelength repeatability		± 0.01nm
Wavelength linearity		± 0.01nm
Minimum screen resolution		0.05nm
Connectors & Display		
Display		12.1" 1280 x 800 dot-array TFT touchscreen
Data transfer		4x USB 2.0 ports*
		1x RJ45 LAN port, 10M/100M
		1x RS-232 DB-9 serial port
Optical interface		SMF-UPC, FC (default); APC, SC (optional)
Storage		8GB internal hard drive; 8GB SD card (32GB max)
Power supply	AC	90 ~ 240V, 1.5A, 50 ~ 60 Hz
	DC	12V 2.5A maximum

Optical Power Measurement	
Input power range	-70 ~ +25dBm
Maximum peak input	20dBm
Power accuracy	± 0.5dB
Power linearity	± 0.07dB
Optical decay rate	38 ~ 42dB (± 0.2nm); 46 ~ 52dB (± 0.4nm)
Sampling points	80,000
ORL	> 35dB
Polarization dependence	± 0.05dB
OSNR measuring dynamic	> 35dB
OSNR measuring uncertainty	± 0.5dB
Sweep speed	0.8 sec/400nm
General	
Operating temperature	0 ~ +50°C
Storage temperature	-20 ~ +60°C
Dimensions (LxWxH)	15.5" x 9.1" x 10.4" (394mm x 230mm x 264mm)
Weight	17.9 lbs (8.1 kg)

* USB power supply DC 5V ± 0.05V @ 500mA