Overview

Brought to you by Deviser Instruments Inc, the AE8500 is a high-precision, high-resolution spectrometer with a wavelength range of 1250 ~ 1650nm. 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 customizable CWDM/DWDM testing, in-band OSNR, light source, EDFA, fiber probe, auto testing, and more. The AE8500 meets the optical spectrum analysis requirements for several years to come - at superior cost-performance.

Key Benefits

• Measure the full range of communication wavelengths and spectrum channels
• Test spectral properties of various types of laser sources
• Test transmission characteristics of optical devices
• Diagnose and monitor key parameters of DWDM signals to check system stability
• View all DWDM channel characteristics at 50GHz/100GHz intervals

Main Features

• Measures optical power input of +20dBm ~ -70dBm, over a wavelength range of 1250 ~ 1650nm
• OSNR dynamic range exceeds 35dB
• Up to 60nm resolution bandwidth
• 12.1” touchscreen optimized for ease of use
• Fast scan displays both full wavelength range and detailed spectrum view
• Good stability and consistency
• Complete user data interface supports LAN connection, USB, SD card, GPIB, and more
Spectrum Analysis

The AE8500’s main measurement 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-Perot laser diode), and DFB (distributed-feedback laser diode).

Specifications

**OSA Technical Parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength range</td>
<td>1250nm ~ 1650nm</td>
</tr>
<tr>
<td>Wavelength uncertainty</td>
<td>± 0.05nm</td>
</tr>
<tr>
<td>Resolution bandwidth</td>
<td>0.06nm</td>
</tr>
<tr>
<td>Wavelength repeatability</td>
<td>± 0.01nm</td>
</tr>
<tr>
<td>PDL @ 1550nm</td>
<td>± 0.1dB</td>
</tr>
<tr>
<td>Power uncertainty</td>
<td>± 0.5nm</td>
</tr>
<tr>
<td>Power repeatability</td>
<td>± 0.1nm</td>
</tr>
<tr>
<td>Power input range</td>
<td>-70 ~ +20dBm; max power 23dBm</td>
</tr>
<tr>
<td>OSNR / ORL</td>
<td>&gt;35dB / &gt;45dB (APC)</td>
</tr>
<tr>
<td>Dynamic range</td>
<td>&gt;-36dB @ ± 0.2nm; &gt;45dB @ ± 0.4nm</td>
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</tbody>
</table>

**Data Storage & Display**

- **Display**: 12.1” 1280x800 TFT LCD touchscreen
- **Storage & Interface**: 2x Type-A USB 2.0 ports, USB power supply, DC5V ± 0.05V @ 500mA. 1x RJ45 LAN port, 10M/100M. 6GB hard drive, add’l 16GB SD card included
- **AC adapter**: 100-240V, 50 ~ 60 Hz

**Test Modes**

- Language support: English, Chinese
- File format support: .osa, .txt,.bmp,.pdf
- Web browser: √
- Universal spectrum test: √
- Custom function test: √

**Test Connectivity**

- Optical port: PC/FC (standard); APC/SC (optional)
- Adapters: FC (standard); SC, ST, LC (optional)
- Fiber: 9/125 µm SM fiber

**Miscellaneous**

- Sweep: ≤1.2s (@ normal mode, sweep width 400nm)
- Operating temperature: 0°C ~ +50°C
- Storage temperature: -10°C ~ +70°C
- Relative humidity: 0 ~ 95%, no condensation
- Dimensions (LxWxH): 15.5” x 9.1” x 10.4” (394mm x 230mm x 264mm)

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