OM1000
Fiber Optic Cable Production Measurement System

Key Benefits
• High-performance desktop optical cable tester
• With broad dynamic range coverage (up to 43 dB), accurately test fibers within distances up to 180 km
• Excellent short-distance performance with ≤1 m event deadzone and ≤5 m attenuation deadzone
• Test with up to 4 optical ports simultaneously
• Numerous data transfer options: supports LAN, USB, SD, & more

Overview
Developed by Deviser Instruments, the OM1000 is a 4-port, all-range fiber-optic cable tester for desktop use. The OM1000 represents a comprehensive solution for cable production, processing, testing, and inspection tasks in any laboratory environment. With test specifications based on Deviser’s extensive line of OTDR products, the OM1000 boasts high integration and real-time analysis & processing at excellent cost-performance.

Specifications

<table>
<thead>
<tr>
<th>Optical Parameters</th>
<th>Wavelength</th>
<th>1310nm</th>
<th>1550nm</th>
<th>850nm</th>
<th>1300nm</th>
<th>1383nm (option)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td></td>
<td>Singlemode</td>
<td>Singlemode</td>
<td>Multimode</td>
<td>Multimode</td>
<td>Multimode</td>
</tr>
<tr>
<td>Dynamic range*</td>
<td></td>
<td>30 - 43 dB</td>
<td>28 - 41 dB</td>
<td>25 dB</td>
<td>27 dB</td>
<td>25 - 35 dB</td>
</tr>
<tr>
<td>Wavelength accuracy</td>
<td></td>
<td>≤5 nm</td>
<td></td>
<td></td>
<td></td>
<td>≤2 nm</td>
</tr>
<tr>
<td>Spectral width</td>
<td></td>
<td>≤10 nm</td>
<td></td>
<td></td>
<td></td>
<td>&lt;0.4 nm</td>
</tr>
<tr>
<td>Measurement range</td>
<td></td>
<td>1.5 km ~ 200 km</td>
<td></td>
<td></td>
<td>1.5 km ~ 25 km</td>
<td></td>
</tr>
</tbody>
</table>

*At 25°C ± 5°C, 20 μs pulse width, 3 min average time, starting backscatter value SNR = 1.
**At 25°C ± 5°C, 6 ns pulse width, non-saturated reflective event, 5 cm distance accuracy.

Wavelength: 1310 nm, 1550 nm, 850 nm, 1300 nm, 1383 nm (option)

Mode:
- Singlemode
- Multimode

Dynamic range:
- Singlemode: 30 ~ 43 dB
- Multimode: 25 ~ 35 dB

Wavelength accuracy:
- Singlemode: ≤5 nm
- Multimode: ≤2 nm

Spectral width:
- Singlemode: ≤10 nm
- Multimode: <0.4 nm

Measurement range:
- Singlemode: 1.5 km ~ 200 km
- Multimode: 1.5 km ~ 25 km

Optical Parameters

- **Event deadzone**: ≤1 m
- **Attenuation deadzone**: ≤5 m
- **Pulse width**:
  - **SM**: 3 ns, 5 ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 μs, 2 μs, 5 μs, 10 μs, 20 μs
  - **MM**: 5 ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 μs
- **Sampling resolution**: 5 cm ~ 12.8 m
- **Group refractive index**: 1.000000 ~ 2.000000
- **Distance uncertainty**: ±(0.75 + 0.0001% × fiber length + sample resolution)
- **Loss resolution**: 0.01 dB/km
- **Distance display range**: 30 m ~ 400 km @ full screen
- **Power display range**: 0.6 dB ~ 60 dB @ full screen
- **Power resolution ratio**: 0.01 dB

Test items:
- Event loss; reflection loss; attenuation; attenuation coefficient; RMS; peak-peak noise; ORL

General Specifications

- **Processor**: Intel® Core™ Ivy Bridge / Sandy Bridge processors in LGA1155 encapsulation, and 800 / 1066 / 1033 MHz FSB bus frequency
- **Display**: VGA
- **USB**: 6x USB 2.0; DC 5V ± 0.05V @ 500 mA
- **LAN**: 1x RJ45 LAN [10M/100M/1000M], Supports Wake on LAN. Extra LAN port optional.

- **Laser safety compliance**: IEC 60825-1 CLASS 1M
- **Optical test standards**:
  - IEC 605793-1-22 [-40/-45]
  - TIA/EIA FOTP-59 (60/61)
  - ITU-T G650
- **Operating temperature**: -10°C ~ +50°C
- **Storage Temperature**: -40°C ~ +70°C
- **Relative Humidity**: 0 ~ 95%, non-condensing
- **Dimensions (LxWxH)**: 14.6” x 20.7” x 8.1” [370mm x 525mm x 205mm]
- **Weight**: 36.4 lbs (16.5 kg)

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