

AE1001 Portable OTDR

Key Benefits

- Ultra-portable, lightweight OTDR for FTtx networks
- 4.3" LCD touchscreen is visible in high- or low-light conditions
- Fast dual-wavelength test generates results in ≤ 5 seconds
- Excellent stability and repeatability
- Power-packed ~2-lb meter runs continuously for over 4 hours
- Save >160k OTDR traces with 16 GB of data storage



Overview

The last thing a fiber maintenance technician needs is a double armful of bulky, feature-bloated equipment to bog down the job. The new AE1001 from Deviser Instruments is a sleek, zero-fuss OTDR weighing less than 1 kg that tests the common 1310 & 1550nm wavelengths in 5s flat. Low power consumption and a solid 2500mAh battery allow the AE1001 to run automated, manual, or real-time tests continuously for over 4 hours, and are supplemented with the always-handly OPM and VFL.

Optical Parameters		
Test Wavelength	1310nm \pm 20nm	1550nm \pm 20nm
Dynamic range*	26 dB	24 dB
Event deadzone**	≤ 3 m	
Attenuation deadzone**	≤ 10 m	
Measurement range	150m, 300m, 500m, 1km, 2km, 5km, 10km, 20km, 40km, 80km	
Pulse width	3ns, 5ns, 10 ns, 30 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 μ s, 2 μ s, 5 μ s, 10 μ s, 20 μ s	
Sampling resolution	Auto / high-resolution modes	
Sampling points	Up to 12,800	
Group refractive index***	1.000000 ~ 2.000000	
Distance uncertainty	$\pm (0.75 + 0.005\% \times \text{fiber length} + \text{sample resolution})$	
Linearity	0.05 dB/dB	
Loss threshold	0.001 dB	
Loss resolution	0.001 dB	
Refresh rate	10 fields/s	
Reflectance accuracy	± 3 dB	
Measurement time range	5s ~ 5min, real time	
Data storage	16 GB, up to 160,000 OTDR traces	

* At 25°C \pm 5°C, 20 μ s pulse width, 3min average time, starting backscatter value SNR = 1.

** At 25°C \pm 5°C, 5ns pulse width, non-saturated reflective event, 5cm distance accuracy.

*** Without group refractive index uncertainty of fiber.

Other Test Modes

Optical Power Meter	Calibrated λ	1310, 1550nm
	Operating λ	850, 980, 1300, 1310, 1490, 1550, 1610, 1625, 1650nm
	Power range	Select from [-70 ~ +10 dBm] or [-50 ~ +26 dBm]
	Power accuracy	± 0.23 dB
Visual Fault Locator (VFL)	Wavelength	650 \pm 10nm
	Power	1mW
	Compliance	Laser Safety Class II
Optical port type	PC (default); APC (optional)	
Optical adapter type	FC (default); SC, ST, LC, SC/APC (optional)	

General Specifications

Display	4.3" dot matrix TFT LCD touchscreen	
Interface	1x USB 2.0; 1x RJ45 LAN (10M/100M/1000M, optional)	
Power	Supply	100 ~ 240V, 1.5A, 50~60Hz (AC); max 12V / 2Ah (DC); total max power 24 W
	Consumption	< 3 W
Battery	7.4V / 2500 mAh Li-ion battery, 18.5 Wh	
Operating Time	~ 6 hrs on full charge (4 hrs continuous testing)	
Operating Temperature	-10°C ~ +50°C	
Storage Temperature	-40°C ~ +70°C	
Relative Humidity	0 ~ 95%, non-condensing	
Dimensions (LxWxH)	7.1" x 5.7" x 2.2" (180mm x 145mm x 55mm)	
Weight	< 2.2 lbs (< 1 kg)	

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