EXFO

AXS-100

The EXFO AXS-100 Access OTDR is a compact, handheld optical time domain reflectometer optimized for passive optical network (PON) testing in FTTx environments. Combining advanced OTDR trace analysis with optional power meter and visual fault locator (VFL) capabilities, it offers one-button testing via its FasTrace mode and a sunlight-readable transflective TFT color display, making it ideal for access network field technicians.

SPECIFICATIONS

General

Interfaces	USB Host (Type A), USB Client (Type B)
Display	3.8 in (97 mm) transflective TFT color, QVGA (320 x 240 pixels)
Recommended Calibration Interval	3 years
Standard Warranty	3 years
Standard Accessories	AC adapter, Lithium-ion battery, CD with ToolBox software, Certificate of calibration, Soft carrying case, Hand strap, Quick reference guide

Physical

Power Supply	AC adapter (100-240 V AC, 50-60 Hz input) / Li-ion rechargeable battery
Operating Temperature	0 °C to 50 °C °C
Dimensions (W×H×D)	125 mm x 250 mm x 75 mm mm
Weight	1.0 kg kg
Mounting and Carrying Options	Integrated hand strap and built-in kickstand

Optical Specifications

Wavelengths	1310 nm ± 20 nm, 1550 nm ± 20 nm (1625 nm ± 10 nm optional with filter)
Fiber Type	Single-mode (9/125 um)
Dynamic Range	29 dB (1310 nm), 28 dB (1550 nm), 28 dB (1625 nm)
Event Dead Zone	2.5 m (typical)
Attenuation Dead Zone	11 m (typical)
Distance Ranges	1.25, 2.5, 5, 10, 20, 40, 80, 120, 160, 260 km
Pulse Widths	10 ns, 30 ns, 100 ns, 275 ns, 1 us, 2.5 us, 10 us
Sampling Points	Up to 30 000
Sampling Resolution	0.08 m to 5 m
Distance Accuracy	±(1 m + 3 x 10^-5 x distance + sampling resolution)
Loss Resolution	0.001 dB
Loss Threshold	0.01 dB
Linearity	±0.05 dB/dB
Optical Port Connector Type	Interchangeable FC, SC, or ST (UPC or APC)

Integrated Optical Options

Visual Fault Locator Wavelength	650 ± 10 nm
Visual Fault Locator Output Power	1 mW (typical)
Visual Fault Locator Operating Modes	Continuous Wave (CW) and 1 Hz pulsed
Optical Power Meter Calibrated Wavelengths	850, 1300, 1310, 1490, 1550, 1625, 1650 nm
Optical Power Meter Power Range	-60 dBm to +10 dBm (Standard); -50 dBm to +26 dBm (High-Power option)
Optical Power Meter Accuracy	±5% ± 0.1 nW (at calibrated wavelengths and -10 dBm)
Stabilized Light Source Wavelengths	1310 nm, 1550 nm (matching OTDR wavelengths)
Stabilized Light Source Output Power	-8 dBm (typical)
Stabilized Light Source Stability	±0.1 dB (1 hour)

Test Management and Analysis

Measurement Modes	FasTrace (one-button test), Fault Finder, Real-time
Trace File Format	Telcordia Bellcore GR-196 / Bellcore (.sor)
Internal Memory Capacity	Up to 500 traces
Automated Analysis	Macrobend detection, Pass/Fail indicators, Fault finding
Remote Management and Data Transfer	ActiveSync via USB cable
External Storage Support	USB flash drive compatibility

Connectivity and Interfaces

Fiber Inspection Probe Support	FIP-400 series inspection probe (optional) via USB port

Display and User Interface

Display Size	4.5 in (114 mm) diagonal
Display Type	Transflective TFT color (sunlight readable)
Display Resolution	QVGA (320 x 240 pixels)
Keypad / Controls	Integrated hard keys and navigation pad

Power and Battery

Battery Type	Lithium-Ion (Li-Ion) rechargeable
Battery Operating Time	8 hours (typical)
Battery Charging Time	Under 3 hours
Power Management / Auto-Off	Yes, user-configurable automatic power-off

Environmental and Compliance

Storage Temperature	-40 °C to 70 °C
Relative Humidity Range	0% to 95% non-condensing

Physical Characteristics

Enclosure Material	Ruggedized plastic housing with integrated rubber bumpers

Power Supply

AC Adapter Input	100–240 VAC, 50–60 Hz, 0.4 A max
AC Adapter Output	9 VDC, 1.6 A

Compliance & Safety

Laser Safety Standards	IEC 60825-1, 21 CFR 1040.10

Stabilized Light Source

Integrated Light Source Modulation	270 Hz, 1 kHz, 2 kHz

Optical Power Meter

Optical Power Meter Resolution	0.01 dB

TECHNOLOGY

Optical Time Domain Reflectometer (OTDR)

APPLICATIONS

FTTx passive optical network characterization, troubleshooting, and fault locating