

# AXS-115 handheld OTDR

POINT-TO-POINT (P2P) LINKS, ACCESS  
AND FTTx NETWORK INSTALLATION  
AND TROUBLESHOOTING

- Ultra-portable and fit-for-purpose, the AXS-115 brings the essential capabilities of a state-of-the-art OTDR in a sleek design to the field.



## KEY FEATURES

Rugged and ultra-portable, featuring a 4-inch high-visibility outdoor touchscreen

All-day battery autonomy

Dynamic range of 32/30 dB

Short dead zones: 0.8/3.5 m event dead zone (EDZ) / attenuation dead zone (ADZ)

Onboard link map simplifying OTDR trace interpretation

Dual wavelengths with automated macrobend detection

In-line power checker and source

Onboard PDF reporting

## APPLICATIONS

FTTx network installation and troubleshooting

Access network characterization

Cable television (CATV), hybrid fiber-coaxial (HFC) network testing

FTTA, distributed antenna systems (DAS) installation

## ACCESSORIES (OPTIONAL)



Test cord box  
TCB-SM-SCX-XXX-XX



Small size soft carrying case  
GP-10-061



Hands-free glove  
GP-3186



AXS OTDR soft pouch  
GP-3151



3-in-1 accessory  
GP-3172

## PORTRAIT AND LANDSCAPE VIEW

Landscape view available at the click of a button:

- Investigate the trace efficiently
- Manual measurements with two markers
- Zoom on elements



## SPECIFICATIONS<sup>a</sup>

### TECHNICAL SPECIFICATIONS

Wavelength (nm) <sup>b</sup>	1310 ± 30/1550 ± 30
Dynamic range (dB) <sup>c</sup>	32/30
Event dead zone (m) <sup>d</sup>	0.8
Attenuation dead zone (m) <sup>d</sup>	3.5
Distance range (km)	0.065 to 200
Pulse width (ns)	3 to 20 000
Linearity (dB/dB)	±0.05
Loss threshold resolution (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	0.04 to 5
Sampling points	Up to 256 000
Distance uncertainty (m) <sup>e</sup>	±(0.75 + 0.0025% × distance + sampling resolution)
Reflectance accuracy (dB) <sup>b</sup>	±2

### GENERAL SPECIFICATIONS

Size (H × W × D)	171 mm × 93 mm × 48 mm (6 3/4 in × 3 11/16 in × 1 7/8 in)
Weight (with battery)	0.5 kg (1.1 lb)
Display	4 in (101.6 mm) touchscreen, 800 × 480 TFT, portrait and landscape view
Interfaces	One USB-C port
Storage	8 GB internal memory (10 000 OTDR traces, typical)
Results format	PDF report on the unit .sor trace as per Telcordia (Bellcore)
Battery	Rechargeable lithium-polymer battery, USB type-C charging port connector
Battery autonomy	>10 hours of operation as per Telcordia (Bellcore) TR-NWT-001138
Temperature	Operating: -10 °C to 45 °C (14 °F to 113 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F) <sup>f</sup>
Relative humidity	< 93 % non-condensing
Data management	FastReporter 3
Adapters	Multiple changeable adapters to fit any optical connectors: SC, FC, LC, and more

### IN-LINE SOURCE

Output power (dBm) <sup>g</sup>	-7
Modulation	1 kHz + Blink, 2 kHz + Blink

### LASER SAFETY



Complies in China and India

- All specifications valid at 23 °C ± 2 °C with an FC/APC connector, unless otherwise specified.
- Typical.
- Typical dynamic range with longest pulse and three-minute averaging at SNR = 1.
- Typical, for reflectance from -55 dB, using a 3-ns pulse.
- Does not include uncertainty due to fiber index.
- 20 °C to 60 °C (-4 °F to 140 °F) with the battery pack. To preserve optimal battery performance, do not expose to high storage temperatures for extended periods of time.
- Typical output power is given at 1550 nm.

**IN-LINE POWER CHECKER <sup>a, b</sup>**

Power range (dBm)	-60 to 23
Power uncertainty (dB) <sup>c, d</sup>	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1310, 1490, 1550, 1577, 1625, 1650
Tone detection	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz, 1 kHz + Blink, 2 kHz + Blink

**ACCESSORIES (optional)**

GP-3151	AXS OTDR soft pouch	GP-3150	Rechargeable battery
GP-10-061	Small size soft carrying case	GP-3172	3-in-1 accessory combining kickstand, hand-strap and VFL holder (compatible with FLS-140)
GP-10-071	Medium size soft carrying case	GP-2227	USB AC adapter (includes interchangeable plugs for North America, Europe, UK and Australia)
GP-3157	Wrist strap	GP-2269	USB-A to USB-C cable (for charging purposes and data transfer)
GP-3186	Hands-free glove		

- a. Typical.
- b. Specifications valid when OTDR not in operation or in idle mode.
- c. At calibrated wavelengths.
- d. Requires a good entry connector's health.

**ORDERING INFORMATION**

**AXS-115-XX-XX-XX**

**Optical configuration <sup>a</sup>**

SM1 = OTDR, 1310/1550 nm

**Connector**

EA-EUI-28 = APC/DIN 47256  
 EA-EUI-89 = APC/FC narrow key  
 EA-EUI-91 = APC/SC  
 EA-EUI-95 = APC/E-2000  
 EA-EUI-98 = APC/LC  
 EI connectors = See section below

**Options**

00 = No accessory  
 GP-3151 = AXS OTDR soft pouch

Example: AXS-115-SM1-EA-EUI-91

- a. Only available and certified in China and India.

**EI CONNECTORS**



To maximize the performance of your OTDR, EXFO recommends using APC connectors on singlemode port. These connectors generate lower reflectance, which is a critical parameter that affects performance, particularly in dead zones. APC connectors provide better performance than UPC connectors, thereby improving testing efficiency.

Note: UPC connectors are also available. Simply replace EA-XX by EI-XX in the ordering part number. Additional connector available: EI-EUI-90 (UPC/ST).

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