



ALBEDO Metro.OTDR-F7 is a high performance OTDR for installing and troubleshoot optical infrastructures and FTTH networks. It can measure physical characteristics of the fiber and can also locate the faults. It may include VFL and OPM as well

Datasheet

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Metro.OTDR-F7

Metro.OTDR is ALBEDO' family of OTDR to satisfy any demand of testing optical fiber. The model F7 can be customized as an OTDR for long-haul transmission links or FTTH access networks.

1. Functional Specification

Model	A	B	C	D
Fiber Type	Singlemode			
Wavelength (nm)	1310 / 1550		1310/1550/1625	
Dynamic Range (dB)	37 / 35	42 / 40	45 / 43	39 / 36 / 34
Event death zone (m)	0.5~0.8m (range≤1.6km, pulse 5ns, fiber reflection loss≥ 40dB)			
Attn. death zone (m)	2.5~10m (range≤1.6km, pulse 5ns, fiber reflection loss≥50dB)			

Metro.OTDR-F7 specs (Region: Latin America)	
Distance Accuracy	±(0.75m + sampling space + distance × 0.0025%)
Distance Resolution	0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8, 16, 32m
Distance Range	0.4, 0.8, 1.6, 3.2, 6.4, 16, 32, 64, 128, 256, 512km
Pulse Width	5, 10, 30, 80, 160, 320, 640, 1280, 5120, 10240, 20480ns
Loss Threshold	0.01dB
Sampling Points	Basic Unit from 128k to Extended Unit* with 264K points
Linearity	0.03dB/dB
Loss Resolution	0.001dB
Storage Capacity	≥ 800 traces (internal) or ≥ 65500 traces (2GB SD card)*
Group Refractive	1.00000 to 2.00000 (0.00001 steps)
Visual Fault Locator*	650nm ±10nm, 2mW Class-2, Output Power -1.5dBm. For 62.5/125µm. CW/1Hz
Optical Power Meter*	Wavelength range: 850nm to 1650nm, Calibrated Wavelengths*: 850,1300,1310,1490,1550,1625 & 1650nm. Measurement range:-60~0dBm. Measurement accuracy: ±5 % ± 10 nW.
Optical Connector	FC/UPC, SC/APC (options: SC/UPC, LC/UPC, ST/UPC)*
Power Supply	100-240VAC 50-60Hz, AC/DC. Lithium battery ≥ 14h Extended Mode*)
Ergonomics	Display: 170mm TFT-LCD Touch 640×480pixels. Size: 295×186×75mm, Weight: 1.5kg / 2.5kg with extended / extra battery. Ports: USB2.0, Mini USB/USB2.0, Ethernet, Earphone, SD-card Reader

Optical Connector SC/APC. Optional FC/PC, SC/PC, LC/PC, ST/PC)

2. Options

2.1 Visual Fault Locator

- Output wavelength: 650nm ±10nm
- Output power: ≥1.5mW (Typical), detection range: ≥5km
- Operating mode: CW / 1Hz / 0.5Hz

2.2 Optical Power Meter

- Wavelength range: 1200nm to 1650nm
- Power range: -60 ~ 0dBm
- Calibrated uncertainty: over 0.22dB (-25dBm, CW, 1,310/1,550nm)
- Power testing uncertainty in optical path range: over ±1.5dB
- Measurement range: -60 to 0dBm
- Measurement accuracy: 5% (-10dBm, CW)

2.3 Optical Source Function

- Output wavelength: the same as the operating wavelength of OTDR
- Output power: ≥ -25dBm (23°C ± 2°C)

2.4 Vibration Detecting Function

- Service wave band: 1,550nm wave band
- Detection range: ≥ 50km

3. Platform

3.1 Ergonomics

- Size: 295×186×75 mm
- Weight: 1.5kg Basic / 2.7kg Extended
- Touchscreen: 640×480 pixels
- 170mm TFT-LCD
- AC/DC range 100V~240V(1.5A), 50/60Hz
- GUI controlled by Touch-screen and keyboard.

3.2 Results

- File transfer to SD card and USB port
- Internal Storage: ≥ 800 traces
- Internal Storage: ≥ 65,500 traces in a 2GB SD card
- OTDR trace file generation (.sor) (.ei). Windows 8.1 Support (to PC)

3.3 Board

- 2 x USB
- 1 x Cable Adapter Mini USB to USB 2.0
- 1 x RJ45 port
- Earphone
- SD card reader
- DC: 19V±10% (2A)

3.4 Batteries

- Lithium-Ion (Field replaceable pack)
- Charging temperature: 5°C~40°C
- More than 14 hours of operation

Battery Storage temperature

- Longer than 6 months: -20°C~45°C
- Short storage time: -20°C~60°C

3.5 Environmental

- Operation temperature: -10°C~ 50°C
- Storage temperature: -40°C~70°C
- Relative humidity: 5% - 95%
- No Condensation

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