



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

Updated on 13/3/17

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
Wavelength (nm)	1310 / 1550			1310/1550/1625
Dynamic Range (dB)	37 / 35	42 / 40	45 / 43	37 / 36 / 34
Optical Range (km)	0.4, 0.8, 1.6, 3.2, 8, 16, 32, 64, 128, 256, 512 km			
Event death zone (m)	0.8m (range ≤ 1.6km, pulse 5ns, fiber reflection loss ≥ 40 dB)			
Attn. death zone (m)	10m (range ≤ 1.6km, pulse 5ns, fiber reflection loss ≥ 50 dB)			

All models	
Fiber Type	Singlemode
Pulse Width	5, 10, 30, 80, 160, 320, 640, 1280, 5120, 10240, 20480 ns
Linearity	0.03dB/dB
Loss Threshold	0.01dB
Loss Resolution	0.001dB
Loss Testing Accuracy	±0.02dB/km
Sampling Resolution	0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8, 16, 32m
Sampling Points	128k points
Distance Accuracy	±(0.75m + sampling resolution + distance × 0.0025%)
Display Resolution	0.0001 km
Loss Readout Resolution	0.001 dB
Trace Refresh	1s
Index of Refraction	1.00000~2.00000
Coefficient of Correction	0.80000 ~ 1.00000
Group Refractive	1.00000 to 2.00000 (0.00001 steps)
Optical Connector	FC/PC (options: 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: 2.7 kg
- Touchscreen: 640×480 pixels
- 6.5 inch 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)

3.3 Board

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

3.4 Batteries

- Lithium-Ion (Field replaceable pack)
- Charging temperature: 5°C~40°C
- More than 8 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: 0°C~50°C
- Storage temperature: -40°C~70°C
- Relative humidity: 5% - 95%
- No Condensation

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