TFN Mini Optical Time Domain Reflectometer (OTDR)

Product Overview

TFN's mini OTDR is a high-performance, multi-functional OTDR designed specifically for fiber FTTH network testing. It features a dynamic range of up to 32dB, a high-precision ranging resolution of 0.05m, and a minimum event dead zone of 1m. This series of mini OTDRs is particularly suitable for fiber patch cord testing, FTTH link maintenance, and fault location. Featuring both touch and key operation modes, remote control, and multi-port expansion, it is an ideal testing partner for field engineers.

Key Selling Points (Solving Customer Pain Points)

1. High-Precision Short Dead Zone Testing

An event dead zone of less than 1m easily handles short-distance fiber patch cord and patch panel testing.

Ranging resolution of up to 0.05m enables precise fault location.

2. All-in-One Multifunctional Design

Integrates OTDR, OPM, VFL (Red Light Fault Location), OLS, and RJ45 cable testing functions.

3. Intelligent Diagnosis and Convenient Operation

Test result self-diagnosis enhances data reliability. Supports one-touch fully automatic testing and real-time testing modes for simple and efficient operation.

4. Lightweight and Portable, Long-Lasting Battery Life

Weighing less than 1kg, the compact size makes it easy to carry around.

A built-in 6300mAh lithium battery provides up to 12 hours of continuous operation.

5. Multi-Interface & Multi-Language Design

Supports USB, MiniUSB, and Ethernet interfaces for connecting to USB flash drives, printers, PCs, and other devices.

The MN3 MINI OTDR supports eight languages (English, French, Spanish, Russian, Arabic, Portuguese, Hindi, and Vietnamese).

Product Parameters

Model	MN3 & F1
Ranging Accuracy	± (1m + sampling interval + 0.005% * distance) (excluding refractive index insertion

	error)
Center Wavelength (±20nm)	1310/1550
Dynamic Range (dB)	MN3: 28/26 F1: 32/30
Test Range	0.5, 1, 2, 4, 8, 16, 32, 64, 128, 256 km
Event Dead Zone	1.0 m
Attenuation Dead Zone	8.0 m
Test Pulse Width	10 ns, 30 ns, 50 ns, 100 ns, 275 ns, 500 ns, 10 s, 50 s, 100s
Test Pulse Width	10, 30, 50, 275, 500, 1000, 5000, 10000ns
Loss Threshold	0.01dB
Number of Sampling Points	128K
Loss Resolution	0.01dB
Reflection Measurement Accuracy	±4dB
Waveform Storage Capacity	≥1000 frames
Fiber Type	Single-mode fiber
External Interface	USB, Mini-USB, RJ-45
Optical Output Interface	FC/SC/ST (interchangeable)
VFL	650nm±10nm, ≥5mW (typical)
Display	3.5-inch color LCD touchscreen
Battery	7.4V/6300mAh lithium battery pack, supports up to 12 hours of continuous operation
Power Supply	Output: 19V, 1.31A
Environmental Specifications	Operating temperature: -5 to +50 ° C, storage temperature: -20 to +70 ° C, relative humidity: 0-95% non-condensing
Dimensions (L x W x H)	208mm × 110mm × 56mm
Weight	<1kg
Language Specifications	Chinese and English, other languages (optional)

Main Functions

OTDR Testing: Features automatic and real-time test modes.

Optical Power Meter (OPM): Wide measurement range (70dBm to +26dBm) with multi-wavelength identification.

Vertical Fault Location (VFL): 650nm ±10nm visible red light, typical power ≥5mW, for rapid fault location.

Light Source (OLS): Supports CW, 270Hz, 1kHz, and 2kHz modulation.

Optical Loss Test (OLT): Supports simultaneous operation of the light source and optical power meter for precise insertion loss measurement.

Communication Optical Automatic Monitoring: Real-time monitoring of optical signal status.

Event Map: Test results enable self-diagnosis. Network Cable Testing: Supports RJ45 cable tracking, cable sequencing, and cable length measurement.

Applicable Scenarios

- Fiber-optic FTTH network construction and acceptance
- Fiber patch cord and patch panel testing and maintenance
- Fiber optic cable fault location and link diagnosis
- Optical communication equipment commissioning in equipment rooms
- Training and on-site training

Summary

The TFN MINI OTDR series features a lightweight design, high-precision testing, and intelligent operation. It is ideal for operators who frequently travel and demand portability and ease of use. Whether testing short-distance patch cords or maintaining long-distance trunk cables, the MINI OTDR series provides reliable and efficient testing support, helping users improve work efficiency and reduce O&M costs.