

## OTDR Measurement for FTTx



✓ Singlemode & Multimode

✓ VFL (Visual Fault Locator)

✓ IP65 protection

✓ anti-reflection LCD screen

### Abstract

OTDR (Optical Time Domain Reflectometer) for Singlemode and Multimode

### Features

- Robust design
- IP65 protection level
- 7-inch anti-reflection LCD screen
- Support multi-language display and input
- Dimensions (H x W x D): 168 x 253 x 73.6 mm
- Weight (incl. battery): 1.5 kg
- Interface: 1x RJ45 port, 3x USB port
- Power supply: 10V (DC), 100V (AC) to 240V (AC), 50~60 Hz
- Battery: 7.4V (DC)/4.4Ah lithium battery; operating time: 12 hours; charging time: < 4 hours (power off)
- Languages selectable: English, Simplified Chinese, traditional Chinese, French, Korean, Russian, Spanish and Portuguese
- Operating temperature and humidity: -10 °C to + 50 °C, ≤ 95% (non-condensation)
- Storage temperature and humidity: -20 °C to +75 °C, ≤ 95% (non-condensation)

### Product Information

The Optical Time Domain Reflectometer (OTDR) is an intelligent meter of a new generation for the detection of fiber communications systems. With the popularization of optical network construction in cities and countrysides, the measurement of optical network becomes short and disperse; the device is specially designed for that kind of application. It's economic, having outstanding performance. The OTDR is manufactured with patience and carefulness, following the national standards to combine the rich experience and modern technology, subject to stringent mechanical, electronic and optical testing and quality assurance; in the other way, the new design makes it more smart and compact and multi-purpose. Whether you want to detect link layer in the construction and installation of optical network or proceed efficient maintenance and trouble shooting, the OTDR can be your best assistant.

## Delivery Content

- USB cable
- Power adapter
- CD disk
- Carrying case
- Adapters (4x FC/UPC already fixed, 4x SC/UPC, 1x ST/UPC, 1x FC/UPC to LC/UPC)

## Product Images



## Technical Parameter

Testing Wavelength (MM: ± 20 nm, SM: ± 10 nm)	Dynamic range (dB) *1	Event/Attenuation Dead-zone (m) *2
850/1300	19/21	0.8/4
1310/1550	35/33	1/4

## Test Parameter

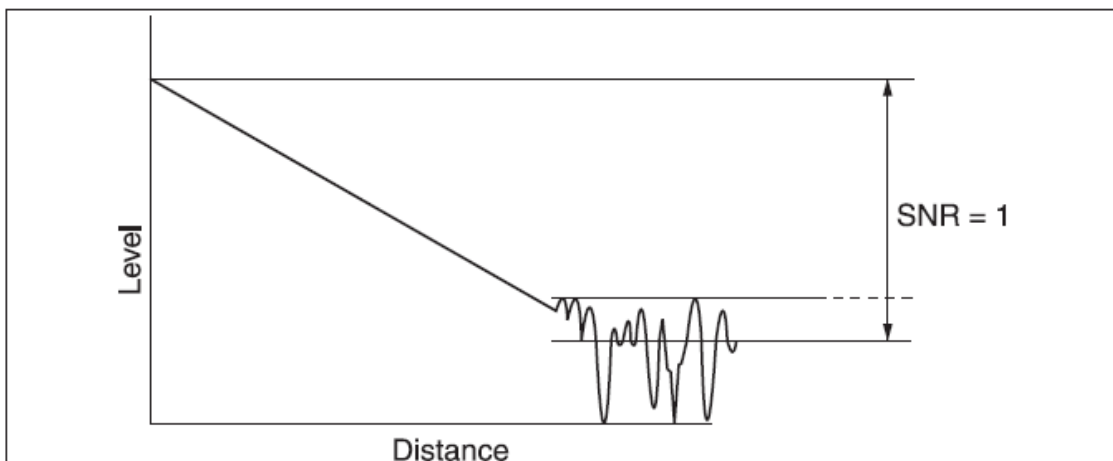
<b>Pulse width</b>	Singlemode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs Multimode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs
<b>Testing distance</b>	Singlemode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km Multimode: 500m, 2km, 5km, 10km, 20km, 40km
<b>Sampling resolution</b>	Minimum 5cm
<b>Sampling point</b>	Maximum 128,000 points
<b>Linearity</b>	≤0.05dB/dB
<b>Scale indication</b>	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
<b>Distance resolution</b>	0.01m
<b>Distance accuracy</b>	±(1m+measuring distance×3×10 <sup>-5</sup> +sampling resolution) (excluding IOR uncertainty)
<b>Reflectance accuracy</b>	Single mode: ±2dB, multi-mode: ±4dB
<b>IOR setting</b>	1.4000~1.7000, 0.0001 step
<b>Units</b>	Km, miles, feet
<b>OTDR trace format</b>	Telcordia universal, SOR, issue 2 (SR-4731) OTDR: User selectable automatic or manual set-up
<b>Testing modes</b>	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe
<b>Fiber event analysis</b>	-Reflective and non-reflective events: 0.01 to 1.99dB (0.01dB steps) -Reflective: 0.01 to 32dB (0.01dB steps) -Fiber end/break: 3 to 20dB (1dB steps)
<b>Other functions</b>	Real time sweep: 1Hz Averaging modes: Timed (1 to 3600 sec.) Live Fiber detect: Verifies presence communication light in optical fiber Trace overlay and comparison

## VFL Module (Visual Fault Locator, as standard function)

Wavelength ( $\pm 20\text{nm}$ )	650 nm
Power	10 mw, CLASSIII B
Range	12 km
Connector	FC/UPC
Launching Mode	CW/2Hz

### \*1

Dynamic range is measured with maximum pulse width, averaging time is 3 minutes, SNR=1; The level difference between the RMS noise level and the level where near end back-scattering occurs.



### \*2

Event dead zone is measured with pulse width of 3ns; attenuation dead zone is measured with pulse width of 5ns

