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LF-OT3L40

Optimized PON FTTx fiber deployment and fault diagnosis Dedicated to PON/ METRO/LONG-HAUL Network Fiber Testing Convenient multi-function fiber optic tester Design for tough outdoor environment Comprehensive performance improvement, more accurate and stable test performance

Description:

LF-0T2L35 Optical Time Domain Reflectometer (OTDR) is an intelligent meter for the deployment and maintenance of PON/ METRO/LONG-HAUL Network fiber communications systems. The new generation LF-0T2L35 PON series has higher test performance and product stability. Larger dynamics and optimized deadzone can provide more accurate fiber testing. Especially in PON network, the testing work can be simplified, and the PON network end-to-end quality analysis can be completed through optimized FLM function.

FEATURES

- 7 inch anti-reflection LCD touch screen
- Dynamic range from 40dB to 45dB, small deadzone 0.8m/3.5m
- Excellent FLM(Fiber Link Map)performance make fiber testing simpler and more efficient
- Optimized PON test capability to pass through 1x128 splitter
- Multi function Integrated design, smart and rugged
- Support remote control on PC software via RJ45 cable
- Built-in OTDR trace PDF report and FLM testing PDF report
- Multi-language display and input(more than 14 languages)

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APLICATIONS

- FTTX test within PON networks
- Access network testing
- Metro network testing
- Long-haul fiber link testing
- Lab and Factory testing
- Live fiber troubleshooting

Ready for all kinds of environment.

LF-0T2L35 series OTDR is specially designed for tough outdoor jobs. Humanized menu, Light-weight, easy operation, low-reflection 7-inch touch screen LCD and more than 6 hours working period make it perfect in field testing.

What you need is all-in-one!

LF-0T2L35 series OTDR is a highly integrated platform that features with four optical module slots, with a large 7-inch color touch screen, a high-capacity lithium battery, an optional microscope (through universal USB port), and built-in optical test functions, such as PON test module, Fiber link map(FLM), visual fault locator (VFL), optional power meter (OPM) and laser source(OLS), making it qualified in the installation,activation, and maintenance of FTTx/Access/Metropolitan area network/backbone network.

Menu Screenshot

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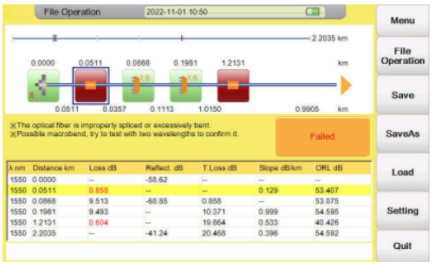
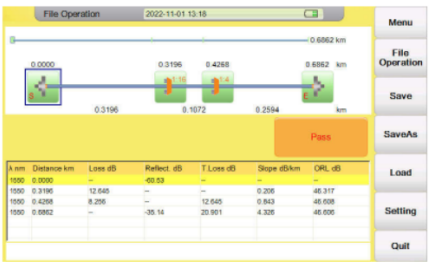
Optimized PON Test

Capability With improved hardware and advanced algorithm, LF-0T2L35 PON series(T40F/T43F/T45F) can easily pass through 1x64 splitter even 1x128 splitter and accurately describe the overall structure of PON network.

In particular, with FLM mode, users can automatically test without complicated settings to obtain the most accurate and intuitively test results. In addition, FLM provides the Pass/Fail function of the PON network, which can intuitively display the failure event in PON network



Pass through 1x8+1x8 splitter network



Pass through 1x16+1x4 splitter network

Through the built-in optical cut-off filter, the LF-0T2L35 can realize the testing for PON network activation, online measurement and maintenance via 1625nm testing wavelength.

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Synchronous optimization of deadzone and dynamic

The LF-0T2L35 PON Series optimizes the deadzone and dynamic range performance in both directions, enabling the LF-0T2L35 to have greater dynamic performance at small pulse width and maintain smaller deadzone performance at large pulse width.

Event deadzone:0.8m

Attenuation deadzone: 3.29m

Dynamic Range Enhancement (40dB~45dB)

The 0T2L35 PON Series has been enhanced dynamic range and can be used to test scenarios such as MAN/long-distance network. support 45dB dynamic range which can support long diatance test capability over 200km.

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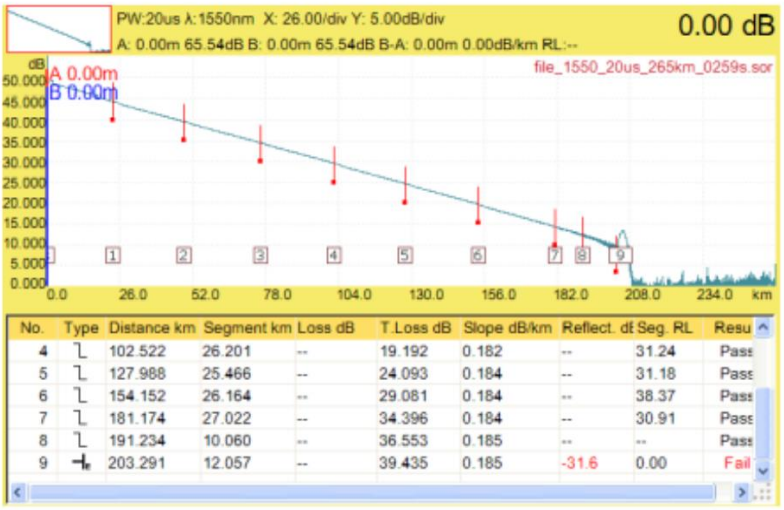
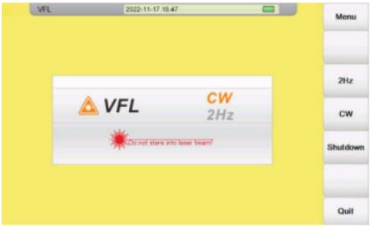


No.	Type	Distance km	Segment km	Loss dB	T.Loss dB	Slope dB/km	Reflect. dB	Seg. RL	Resu
4		102.522	26.201	--	19.192	0.182	--	31.24	Pass
5		127.988	25.466	--	24.093	0.184	--	31.18	Pass
6		154.152	26.164	--	29.081	0.184	--	38.37	Pass
7		181.174	27.022	--	34.396	0.184	--	30.91	Pass
8		191.234	10.060	--	36.553	0.185	--	--	Pass
9		203.291	12.057	--	39.435	0.185	-31.6	0.00	Fail

VFL (Visual fault locator)

The 10mw VFL, available as a standard module in LF-0T2L35, offers built-in 650nm visual red light can test up to 12km.



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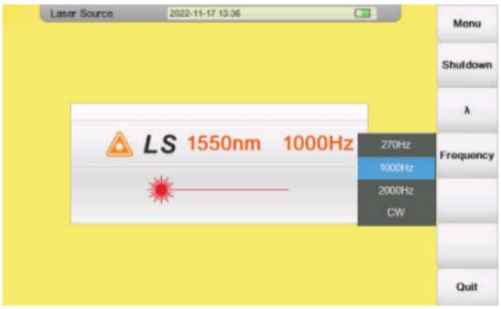
OPM (Optical power meter)

LF-0T2L35 series OTDR comes with optional built-in power meter that let technicians easily verify the presence and the power of a signal. Two types of power meter are optional(TypeA: -60~+5dBm and TypeB: -40~+23dBm).

OLS (Optical laser source)

LF-0T2L35 series OTDR comes with optional built-in laser source that let technicians easily verify the total loss of the local network with a power meter. The functions of laser source and power meter can work at the same time to verify the link loss performance. The output power is >-8dBm and support CW/270Hz/1kHz/2kHz output mode



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EFD (Endface Fiber Detector)

The optional fiber inspection probe facilitates the inspection before the connection. LF-0T2L35 series OTDR offers this capability through a USB port connection, which allows quick and easy inspection of connector end faces for contamination and also enables it capture and store the image. There are two fiber microscope models can work with LF-0T2L35 OTDR

Model	Picture	Standard tips
FIM-4		SC-PC-F(for SC/PC female bulkhead) FC-PC-F(for FC/PC female bulkhead) LC-PC-F(for LC/PC female bulkhead) 2.5PC-M(for 2.5mm/PC male connector)
FIM-18		25-U-M (for 2.5mm/PC male connector) 125-U-M(for 1.25mm/PC male connector) FC-U-F(for FC/PC female bulkhead) SC-U-F(for SC/PC female bulkhead) LC-U-F(for LC/PC female bulkhead)

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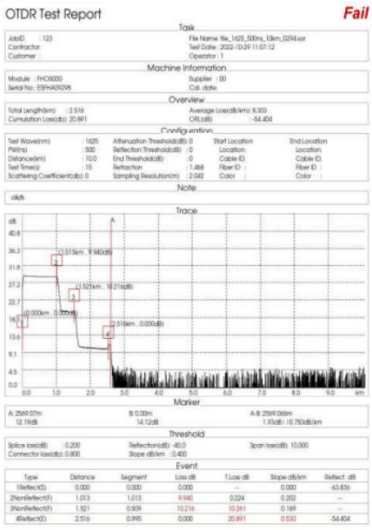
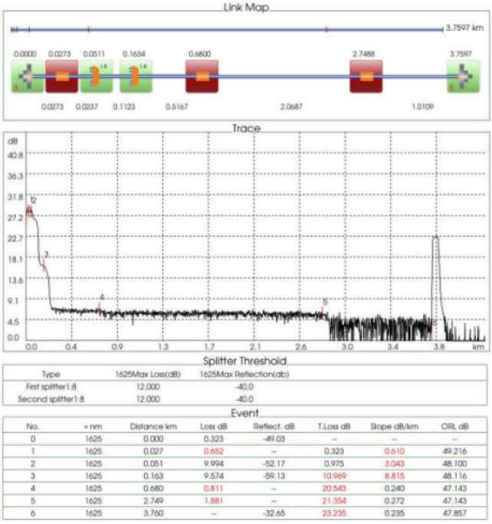
Bulit-in Generate PDF Report

Multi language OTDR trace PDF report and FLM testing PDF report can be generated directly in the machine.



OTDR Trace PDF Report



FLM Testing Report

Multi-language Display and Input

LF-0T2L35 supports multiple overseas languages and is applicable to customers in different countries.

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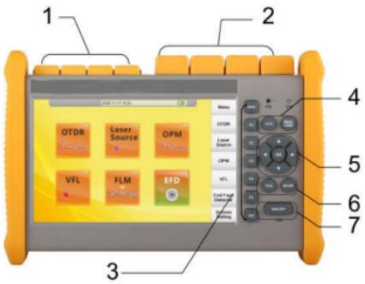
INTERFACE DEFINITION



No	Name	Description
1	Electric ports (From left to right)	Charging port: DC input 10V/4A USB 2.0 port: Insert USB disk to upgrade RJ45 Ethernet port: remote control port Mini USB port: Transfer file to PC via USB cable
2	Optical ports (From left to right)	OTDR port1: for 1310nm/1550nm testing VFL port: 2.5mm universal port OPM port: for optical power testing OTDR port2(optional): for 1625nm testing
3	Function key	Menu: Enter the Main menu interface F1-F5:Enter the corresponding menu option ESC: Enter the system setting or back to main menu You can check "System info/language/date/power saving/bright light/IP setting, etc"in system setting
4	Test key	AVG: Perform OTDR average test ; REAL TIME: Perform OTDR realtime test
5	Direction key	Move cursor and confirm
6	File and Setup	File: To enter the saved file storage ; Setup: To enter the OTDR testing setting
7	ON/OFF key	Long press>2s to power on/off the OTDR

Specification

General

Dimension	253×168×73.5mm/1.5kg (battery included)
Display	7 inch touch screen TFT-LCD with LED backlight
Interface	1×RJ45 port, 3×USB port (USB 2.0, Type A USB×2, Type B USB×1)
Power Supply	10V(dc), 100V(ac) to 240V(ac), 50~60Hz
Battery	7.4V(dc)/4.4Ah lithium battery (with air traffic certification) Operating time: 6 hours①, Telcordia GR-196-CORE Charging time: <4 hours (power off)

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Power Saving	Backlight off: Disable/1 to 99 minutes Auto shutdown: Disable/1 to 99 minutes
Data Storage	Internal memory: 16GB
Language	User selectable (English, traditional Chinese, French, Korean, Russian, Spanish, Portuguese, Turkish, Italian, German, Thai, Hungarian, Czech, Vietnamese, Polish-contact us for availability of others)
Environmental Conditions	Operating temperature and humidity: -10℃~+50℃, ≤95% (non-condensation) Storage temperature and humidity: -20℃~+75℃, ≤95% (non-condensation)
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, carrying case Optional: SC/ST/LC adapter, Bare fiber adapter, Fiber microscope, Launch cable box

Test parameter

Pulse Width	Single mode: 3ns, 5ns, 10ns, 30ns, 50ns, 100ns, 275ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs
Testing Distance	Single mode: 500m, 2km, 5km, 10km, 20km, 33km, 40km, 80km, 120km, 160km, 265km
Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 256,000 points
Linearity	≤0.05dB/dB
scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance×3×10^{-5}+sampling resolution) (excluding IOR uncertainty)

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Reflectance Accuracy	Single mode: ±2dB, multi-mode: ±4dB
IOR Setting	1.3000~2.0000, 0.0001 step
Units	Km, miles, feet
OTDR Trace Format	Telcordia universal, SOR, issue 2 (SR-4731) OTDR: User selectable automatic or manual set-up
Fiber Event Analysis	-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)
Other Functions	Built in multi-language PDF report generation Live Fiber detect: Verifies presence communication light in optical fiber Dual wavelength(1310nm/1550nm) analysis-Macro bending detection Trace overlay and comparison (most 8 traces) Define the Pass/Fail result of each event through threshold settings

VFL Module

Wavelength	650nm(±20nm)
Power	10mw,CLASSIII B
Range	12km
Connector	Universal 2.5mm
Launching Mode	CW/2Hz

OPM Module

Wavelength Range	800~1700nm
Calibrated Wavelength	850/1300/1310/1490/1550/1625/1650nm
Test Range	Type A: -60~+5dBm (standard); Type B: -40~+23dBm (optional)
Resolution	0.01dB
Accuracy	±0.35dB±1nW
Connector	FC/UPC

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Notes:

1. Typical, backlight off, sweeping halted at 25℃, 6 hours typical continuous testing.
2. Model T40F/T43F/T45F are integrated with optical filter, which allow them to test PON network online (by using 1625nm wavelength) and will not interrupt the fiber signal.
3. Dynamic range is measured with maximum pulse width 20us, averaging time is 3 minutes, SNR=1; The level difference between the RMS noise level and the level where near end back-scattering occurs.
4. Dead zone is measured with pulse width of 3ns and return loss under -55dB.
5. 1310/1550nm laser source uses OTDR1 port, and 1625nm uses OTDR2 port.