

UF-2874 SERIES OTDR

*Convenient multi-function fiber optic tester
Design for tough outdoor environment*



FEATURES

- Integrated design, smart and rugged
- IP65 protection level, outdoor enhanced
- 7-inch anti-reflection LCD touch screen
- PON online test module (1625nm) for UF-2874
- MMF test module (850/1300nm) for UF-2874Quad
- Support multi-language display and input

APPLICATIONS

- FTTX test with PON networks
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing
- Lab and Factory testing
- Live fiber troubleshooting

Ready for all kinds of environment.

UF-2874 series OTDR is specially designed for tough outdoor jobs. IP65 protection level, lightweight, easy operation, low-reflection LCD and more than 12 hours working period make it be perfect in filed testing. Meanwhile, optional PCB board with water-proof coating helps UF-2874 series OTDR get better protection performance.

What you need is all-in-one!

UF-2874 series OTDR is a highly integrated platform that features with four module slots, with a large 7-inch color touch screen , a high-capacity Lithium-Ion battery, an optional microscope (through universal serial bus [USB] port), and built-in optical test functions, such as PON test module, visual fault locator (VFL), optical power meter, and Optional laser source, making it qualified in the installation, turn-up, and maintenance of FTTx/Access optical networks.

Main functions

Multi-mode & Single mode OTDR

UF-2874 OTDR support Single mode (1310,1550,1625nm) for analyze Single mode fiber network

UF-2874Quad OTDR support Single mode and Multi mode (850,1300,1310,1550nm) for analyze Single mode and Multi mode fiber network

VFL (visual fault locator)

The VFL, available as an standard module in UF-2874,UF-2874Quad OTDR, offers built-in 650nm visual fault location on a FC/UPC connector.

PON ONLINE TEST

UF-2874 OTDR uses 1625nm wavelength to scan and analyze the access point, and proceed online testing with optical filter and will not disturb the service.

FLM (fiber link measurment) Optional

FLM Test (Fiber Link Measurement), also known as "Optical Eye", uses multiple pulse width acquisitions and advanced algorithms to quickly characterize the fiber under test and display the optical events applying intuitive symbols.

OPM (Optical Power meter)

UF-2874,UF-2874Quad OTDR come with built-in power meters that let technicians easily verify the presence of a signal.

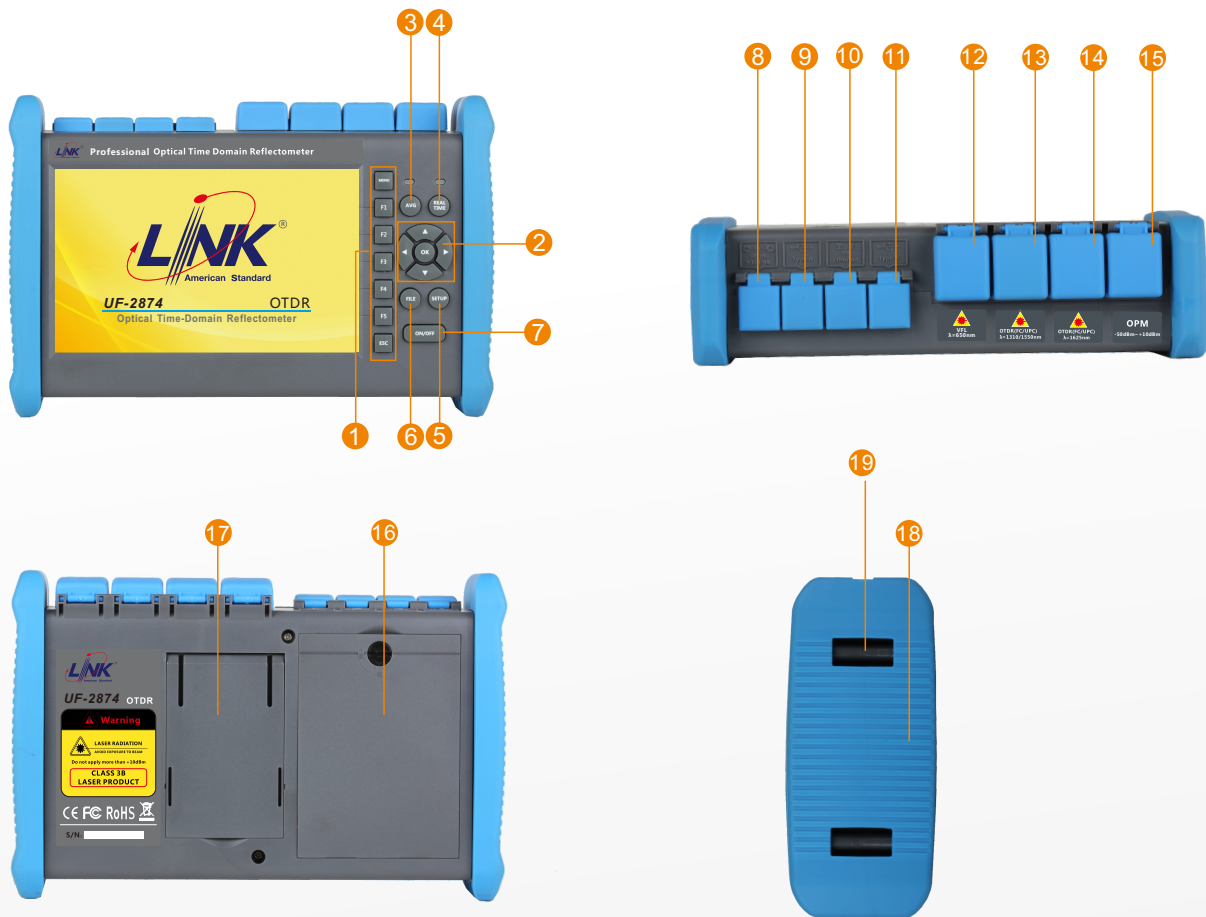
OLS Optical Light Source (Optional)

UF-2874 series OTDR comes with optional built-in laser source through OTDR1 Port that let technicians easily verify the total loss of the local network with a power meter.

FM (fiber microscope) Optional

The optional fiber inspection probe facilitates the Inspect Before the connection. UF-2874 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.

Structure



- | | | |
|--|---|---|
| <ul style="list-style-type: none"> 1 Menu selection Button 2 Navigation Button 3 AVG test Button 4 RT test Button 5 Test setup Button 6 File management Button | <ul style="list-style-type: none"> 7 Power Switch 8 Charging Port 9 USB(A Type) Port 10 RJ45 Port 11 USB(B Type) Port 12 VFL Port | <ul style="list-style-type: none"> 13 OTDR1 Port 14 OTDR2 Port 15 OPM Port 16 Battery Compartment 17 Supporting Plate 18 Crash Pad 19 Safety belt buckle |
|--|---|---|

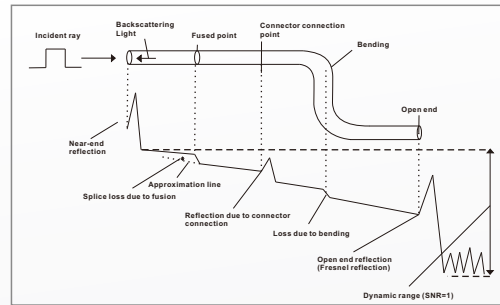
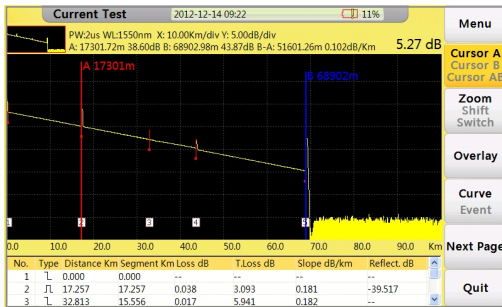
Model					
1	UF-2874Quad	850/1300/1310/1550nm	2	UF-2874	1310/1550/1625nm
		built-in OPM & VFL			built-in OPM & VFL

Humanized Test Interface

UF-2874 series OTDR could display Splice loss, Connector loss, Fiber attenuation, Reflection of points, Link optical return loss and distance to fiber events etc. With test information in a smart way, user could get detailed information immediately.

Quick fit in short time

Simplified display style and structured menus help effective in reducing the time of study.

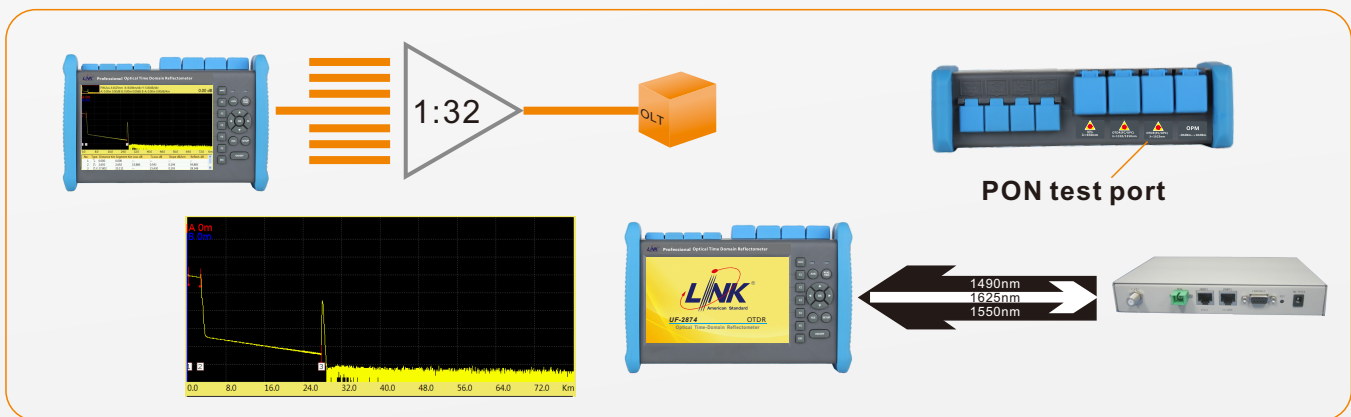


FTTH test within PON networks

UF-2874 OTDR are dedicated to the testing of PON network maintenance and troubleshooting without service disruption.

Last mile master

UF-2874 OTDR could easily test through 1*32 PLC splitter in PON test



Fiber Microscope

Microscope is optional for UF-2874 series OTDR. 400X amplification and variety of accessories ensure perfect terminal condition before test.

The essential first step

Taking time to properly inspect connector end faces can prevent a slew of problems down the line, saving you time, money and headaches.



Result transfer

Check test result on PC or PDA through USB; 4GB large internal memory space could store more than 40,000 groups of result.

Link in line

- Download reference traces and settings from database
- Send measurement result via e-mail
- Ask for remote help



Specification

General

Dimension	253×168×73.6mm 1.5kg(battery included)
Display	7 inch TFT-LCD touch screen with LED backlight
Interface	1×RJ45 port, 3×USB port(USB2.0, 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: 12 hours①, Telcordia GR-196-CORE Charging time: <4 hours (power off)
Power Saving	Backlight off: Disable/1 to 99minutes Auto shutdown: Disable/1 to 99minutes
DataStorage	Internal memory: 4GB (about 40,000 groups of curves)
Language	User selectable (English, Simplified Chinese, traditional Chinese, French, Korean, Russian, Spanish and Portuguese -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) Proof: IP65(IEC 60529)
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case Optional: SC/ST/LC adapter, Bare fiber adapter

Technical parameter

Type②	Testing wavelength (MM:±20nm, SM:±10nm)	Dynamic range(dB)③	Event/Attenuation dead-zone(m)④
UF-2874Quad	850/1300/1310/1550	21/19/35/33	MM: 1.5/8m SM: 1.5/8m
UF-2874	1310/1550/1625	40/38/38	1.75/11

Test parameter	
Pulse Width	Single mode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs Multi mode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs
Distance Range	Single mode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km Multi mode: 500m, 2km, 5km, 10km, 20km, 40km
Sampling Resolution	Minimum 25cm
Sampling Point	Maximum 128,000 points
Linearity	≤0.05dB/dB
Scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	$\pm(1m + \text{measuring distance} \times 3 \times 10^{-5} + \text{sampling resolution})$ (excluding IOR uncertainty)
Reflectance Accuracy	Single mode: ±2dB, multi mode: ±4dB
IOR Setting	1.4000~1.7000, 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
Testing Modes	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe
Fiber Event Analysis	Auto or manual operation, displayed in table format User defined PASS/FAIL thresholds: -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	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(±20nm)	650nm
Power	10mW, CLASS III B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

OPM Module (Optical Power Meter, as standard function)

Wavelength Range	800~1700nm
Calibrated Wavelength(±10nm)	850/1300/1310/1490/1550/1625/1650nm
Test Range	TypeA: -65~+5dBm (standard); TypeB: -40~+23dBm (optional)
Resolution	0.01dB
Accuracy	±0.35dB±1nW
Modulation identification	270/1k/2k Hz, $P_{input} \geq -40\text{dBm}$
Connector	

OLS Module (Optical Light Source, as optional function)

Working wavelength(±10nm)	1310/1550/1625nm ^⑤
Output power	Adjustable -25 ~ 0dBm
Accuracy	±0.5dB
Connector	FC/UPC

FM Module (Fiber Microscope, as optional function)

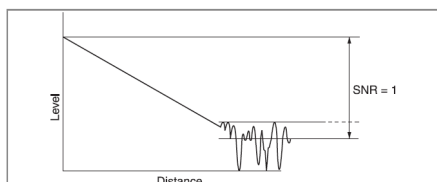
Magnification	400X
Resolution	1.0μm
View of Field	0.40×0.31mm
Storage/working Condition	-18°C~35°C
Dimension	235×95×30mm
Sensor	1/3 inch 2 million of pixel
Weight	150g
USB	1.1/2.0
Adapter^⑥	Standard: SC-PC-F (For SC/PC adapter) FC-PC-F (For FC/PC adapter) LC-PC-F (For LC/PC adapter) 2.5PC-M (For 2.5mm connector, SC/PC, FC/PC, ST/PC)

FLM (Fiber Link Measurement, as optional function)

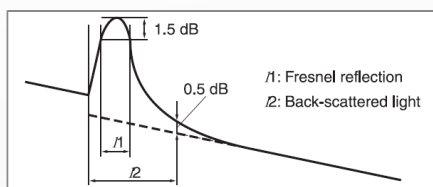
FLM Test (Fiber Link Measurement), also known as "Optical Eye", uses multiple pulse width acquisitions and advanced algorithms to quickly characterize the fiber under test and display the optical events applying intuitive symbols.

Notes

- ① Typical, backlight off, sweeping halted at 25°C, 12 hours typical continuous testing.
- ② Model UF-2874 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, averaging time is 3 minutes, SNR=1; The level difference between the RMS noise level and the level where near end back-scattering occurs.

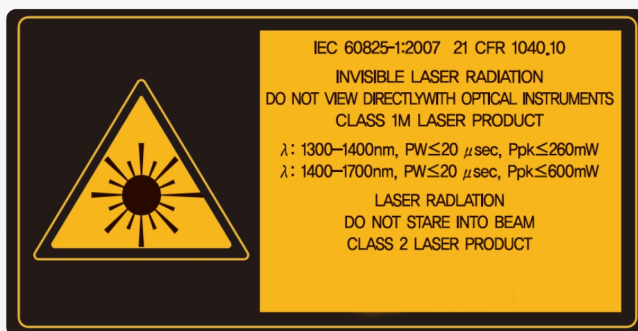


- ④ Event dead zone is measured with pulse width of 3ns; attenuation dead zone is measured with pulse width of 5ns.

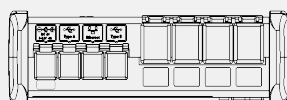
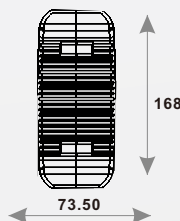
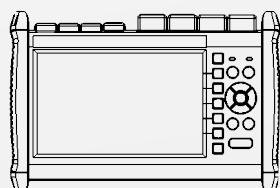


- ⑤ 1310/1550nm laser source uses OTDR1 port, and 1625nm or 850/1300nm uses OTDR2 port.
- ⑥ For more adapters please contact us.

CAUTION:



VIEWING THE LASER OUTPUT WITH CERTAIN OPTICAL INSTRUMENTS (FOR EXAMPLE: EYE LOUPES, MAGNIFIERS AND MICROSCOPES) WITHIN A DISTANCE OF 100 MM MAY POSE AN EYE HAZARD.



Unit:mm

Except where noted, tolerance default as:±3%

(if size<10mm, tolerance:±0.3mm)