JILONG

Since 1993

KL-6500

Optical Cable Identifier Series

【Optical Cable Identifier Series】

With 30 years of dedicated R&D and manufacturing expertise, JILONG Optical Cable Identifier makes cable management simpler, smarter, and more efficient. The KL-6500 models support a wide range of applications, including network maintenance, engineering cutover, resource documentation and reactivation, installation and maintenance (I&M) of backbone fiber networks (core, metro, mobile fronthaul/backhaul), as well as troubleshooting for access networks and FTTx.

Featuring non-destructive identification and precise fiber targeting, the device delivers powerful signal performance for ultra-long-distance detection. It integrates industry-leading OTDR technology with OCID, power meter, VFL, light source, network testing, and fiber end-face inspection into one robust handheld tool—a true all-in-one solution for modern optical network management.

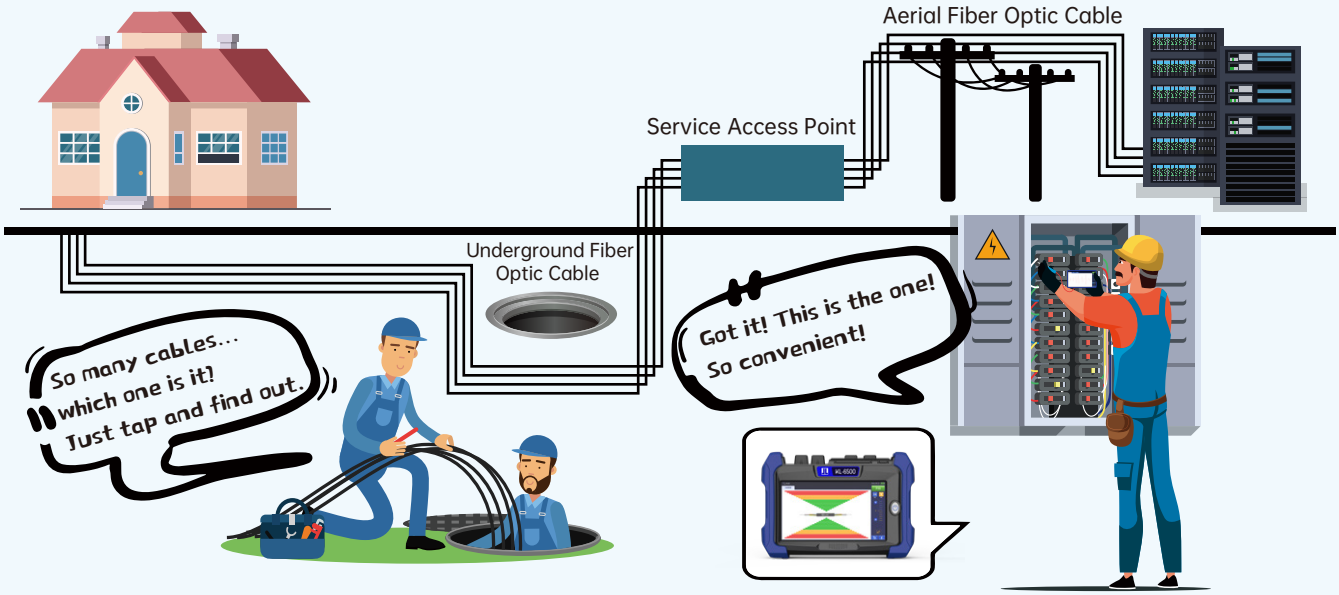
- iOLA, One-click intelligent testing of passive PON network.
- Event dead zone: 1.0 m, attenuation dead zone: 3.0 m.
- Advanced splitter testing: 64-way, 3-stage splitters compatible.
- Locate cables in complex wiring through audio and visual signals (Waveform / Signal Strength)
- Non-destructive optical cable testing, high efficiency, precise identification.
- All-in-one multifunctional tester, built-in OTDR/OCID/OPM/OLS/VFL/Network Testing/FIP.
- WIFI, VNC remote control.
- Pass/Fail analysis function.

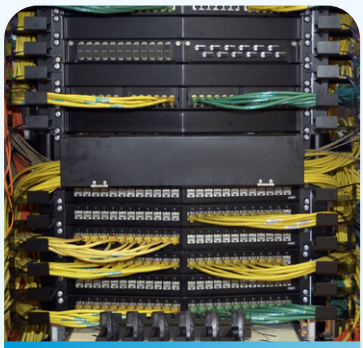
【How to choose the Optical Cable Identifier?】

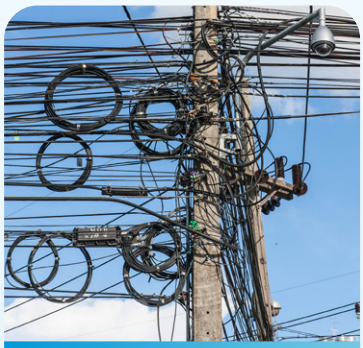
Type	KL-6500	
Product	Optical Cable Identifier OTDR All-in-One Unit	
Type	BS1 | BS2	AS1 | AS2
Maximum Test Distance	80km	40km
OTDR	Standard Configuration	Standard Configuration
OPM	Standard Configuration	Standard Configuration
SLS	Standard Configuration	Standard Configuration
VFL	Standard Configuration	Standard Configuration
RJ45	Standard Configuration	Standard Configuration
Bluetooth function	Standard Configuration	Standard Configuration
FIP	Optional	Optional
WIFI	Standard Configuration	Standard Configuration
GPS	Optional	Optional

【Suitable Scenarios】

Provides precise cable identification in complex environments (pipelines/tunnels/manholes/aerial) and supports full-cycle operator workflows from construction and cutovers to resource management and maintenance.




Telecom Room


Fiber Network Upgrade


Utility Inspection


Scheduled Maintenance

【One-Click Optical Cable Identify】

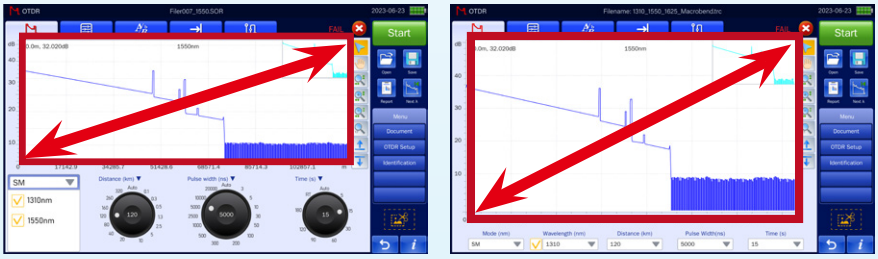
80km detection range – no sectional testing needed for mountainous/cross-city cables. Complete in one click.

【7.0-inch Multi-Touch Capacitive Touchscreen】

When multiple fibers run in parallel, the large screen can zoom in on link labels to quickly distinguish the target cable and prevent mishandling.

Expandable Graph View

Tap the to zoom in on the waveform display area for a more detailed view.



【One-Click PDF Report Export】

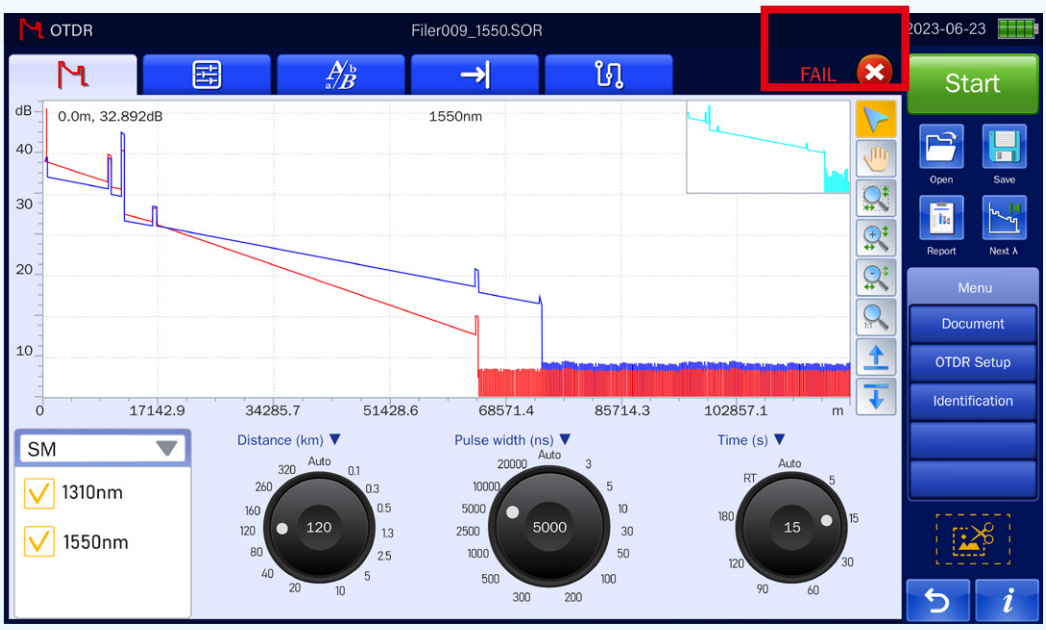
Built-in software exports OTDR traces as PDF reports.

Not Just Core Network Checks!

OCID Optical Cable Identifier – More Capabilities

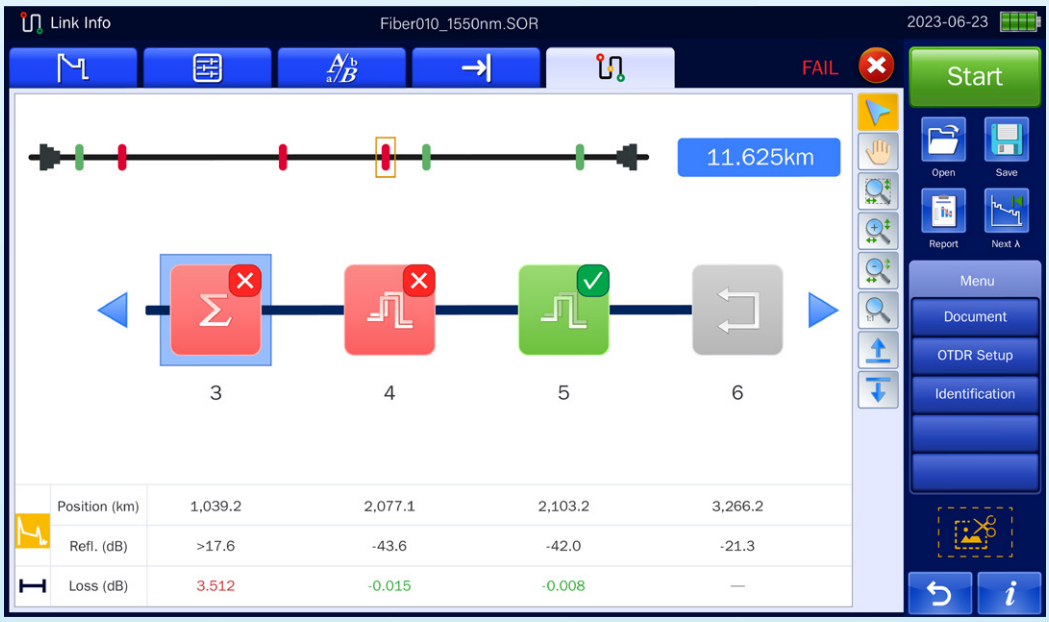
【Pass & Fail analysis function】

Automatically performs Pass/Fail judgment for each event based on pre-set thresholds. Measurement results can be viewed in the result display area (as shown in the red box in the image below).



【Smart Map (Graphical Link Display) 】

One-Click Smart Map Operation – Press once to measure, detect events, and get Pass/-Fail results. The intuitive icon-based view shows event location/type, while automatic threshold-based grading delivers instant verdicts.

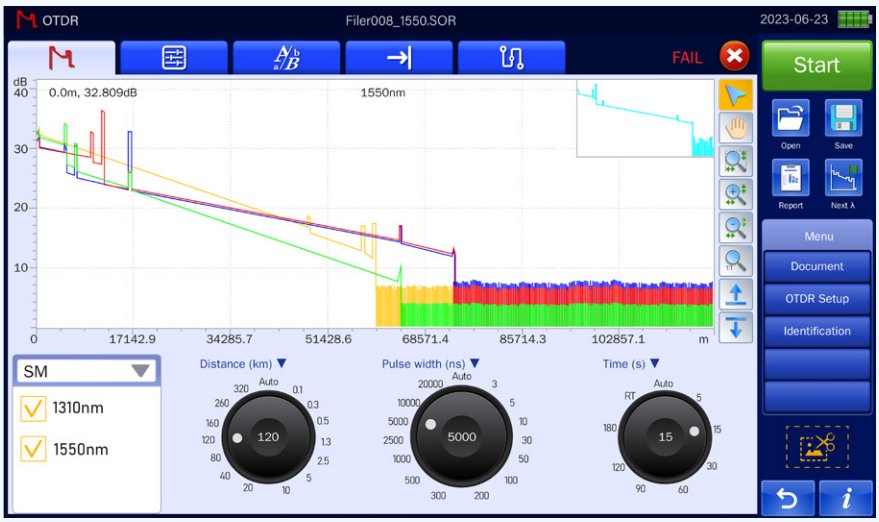


【Advanced Trace Analysis】

OTDR Main Module – Advanced Data Analytics.

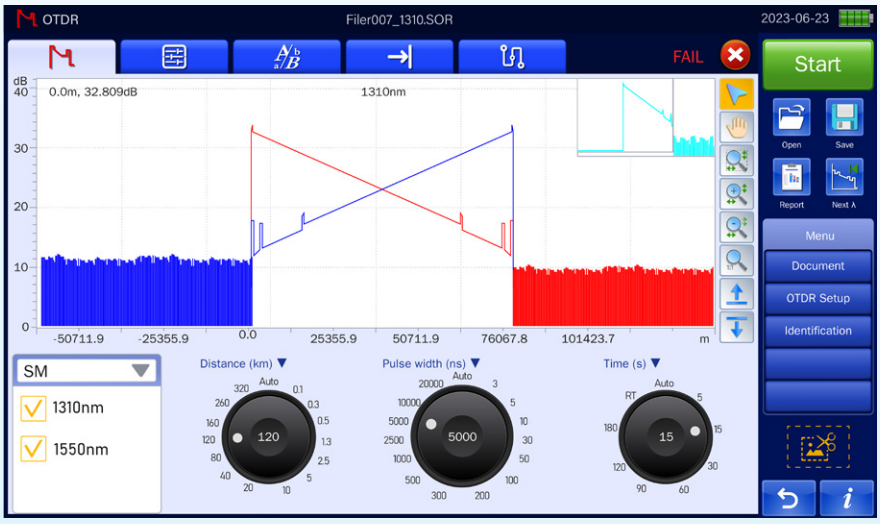
Multi–Trace Analysis

View up to 4 traces side–by–side for integrated analysis and higher accuracy.



Bi–Directional Testing

Averaging measurements taken from opposite directions yields a more accurate loss value. Bidirectional testing is an effective method for enhancing test integrity in long–distance applications.

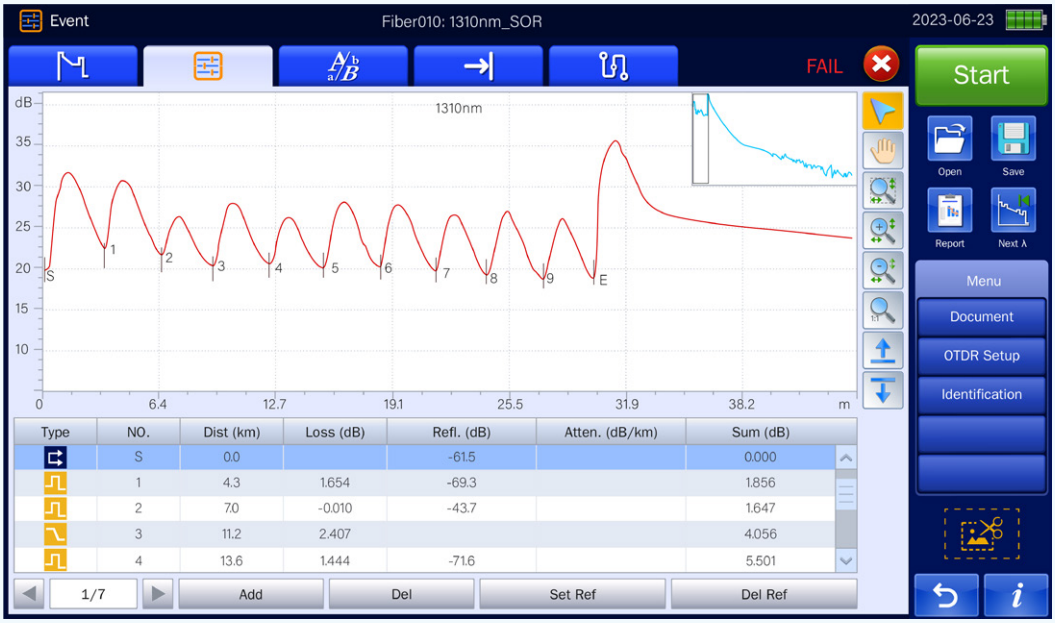


4–Point Test

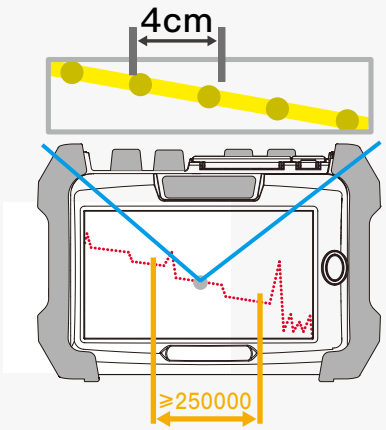
Real–time splice–loss monitoring with low noise sensitivity delivers more accurate test results.

【10×3m Patch Cord Test】

Short-Distance Testing: Accurately detects events and loss.

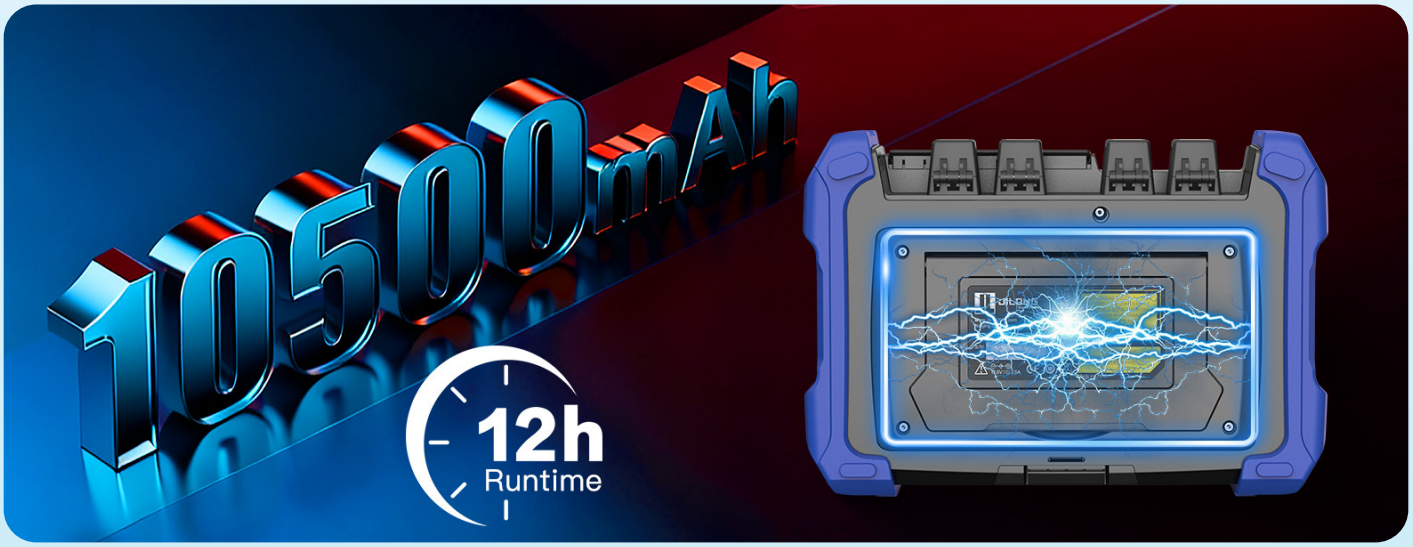


Sampling Resolution: 4cm (min)
Sampling Points: ⩾250,000



Rubber design reduces shock, falls, and bumps.

【High-capacity Battery】



【iOLA (Hawkeye) 】

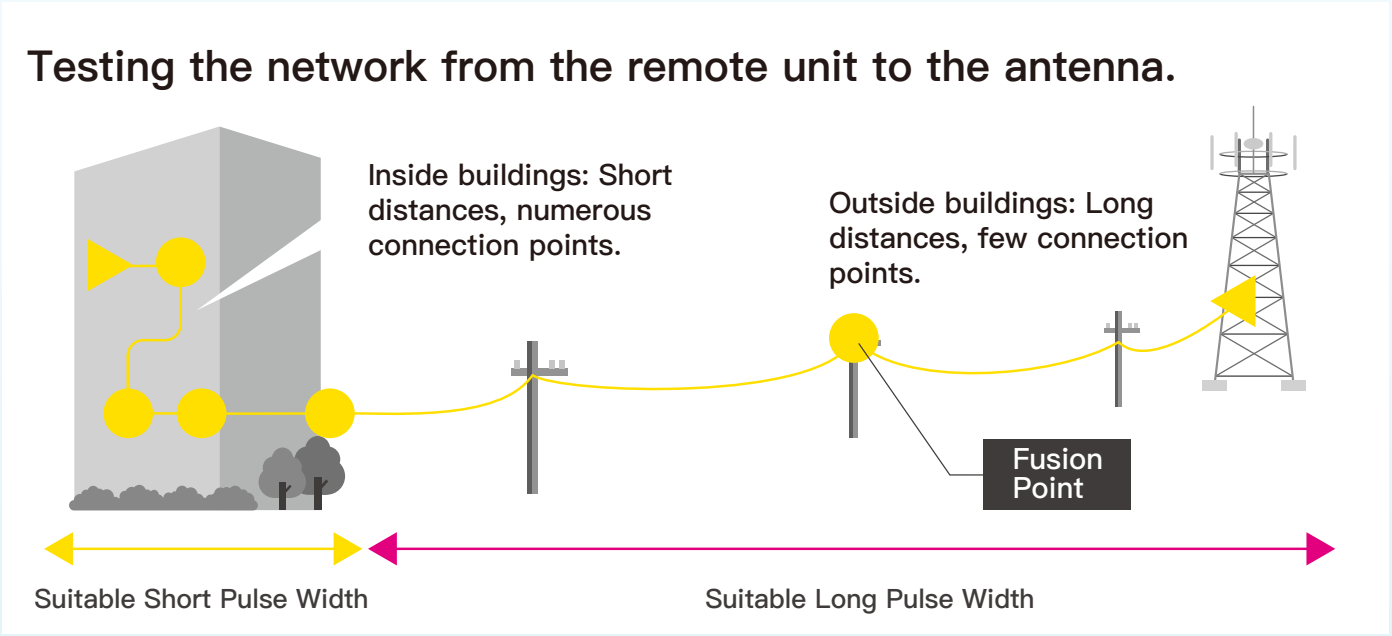
Common Challenges in OTDR Testing:

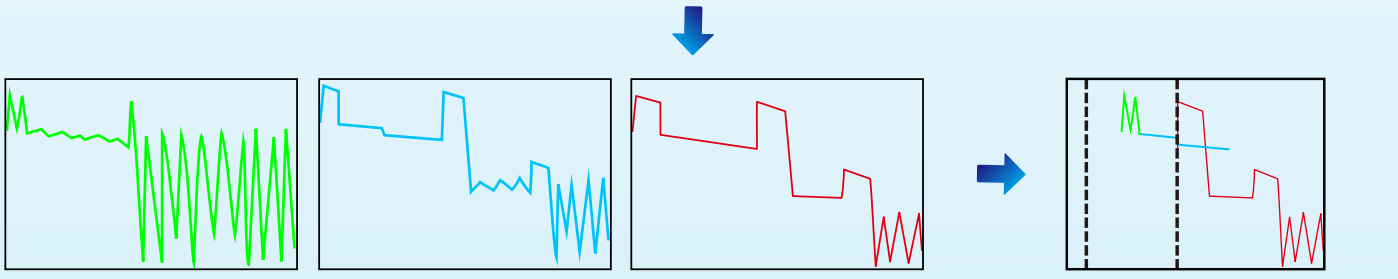
- Incorrect OTDR Curve
- Multi-Trace Analysis Required
- Repeat same task
- Complicated Operation

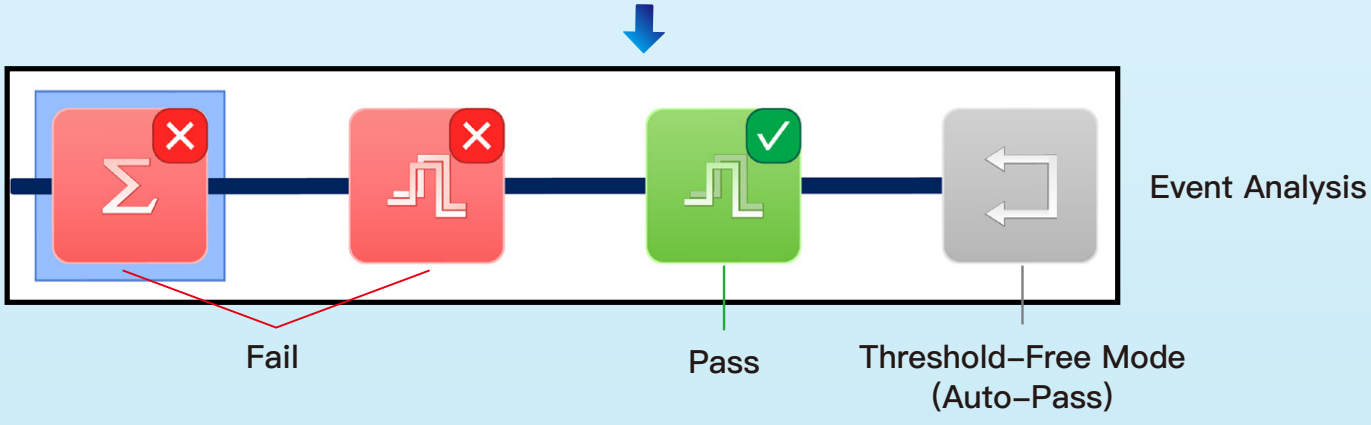
To address these challenges, JILONG has developed a smarter solution: iOLA (Hawkeye).

This is an OTDR-based application designed to completely simplify the testing process, no manual parameter configuration is required, nor is there a need to interpret multiple complex OTDR traces. iOLA incorporates advanced algorithms that dynamically define test parameters and intelligently determine the optimal number of trace acquisitions based on the network under test. It can also correlate multiple wavelengths and multiple pulse widths to accurately locate and identify faults at different resolutions, all with just one button press.

Principle of Operation



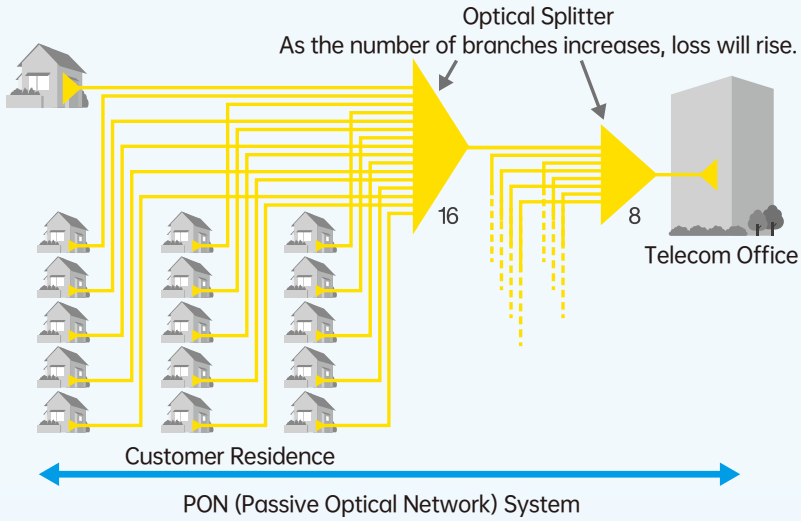




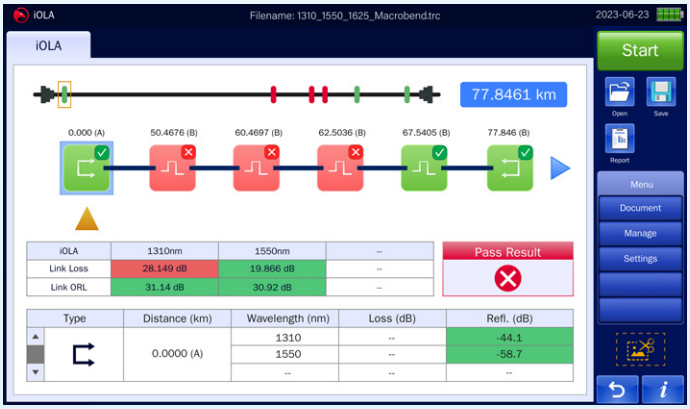
【PON Optimization】

Measure highloss networks like Passive Optical Network (PON) systems quickly, conveniently, and accurately. In PON mode, simply select the route configuration to be tested on the screen, and the OTDR automatically determines suitable measurement conditions and sets optimal values. Even after significant loss caused by optical splitters, the Optical Cable Identifier Series ensures high trace quality.

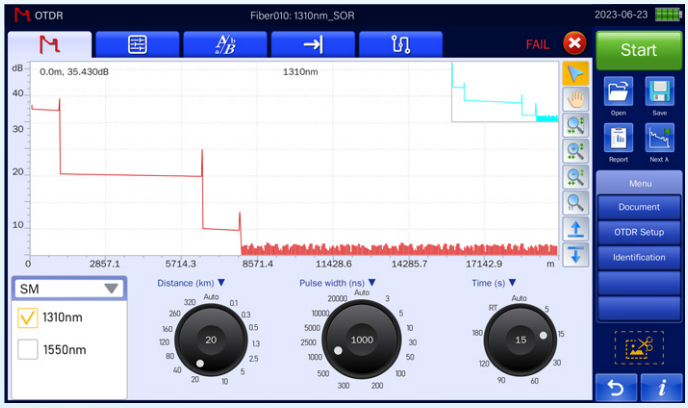
Field Example: Testing a Dual-Splitter PON from the Customer End



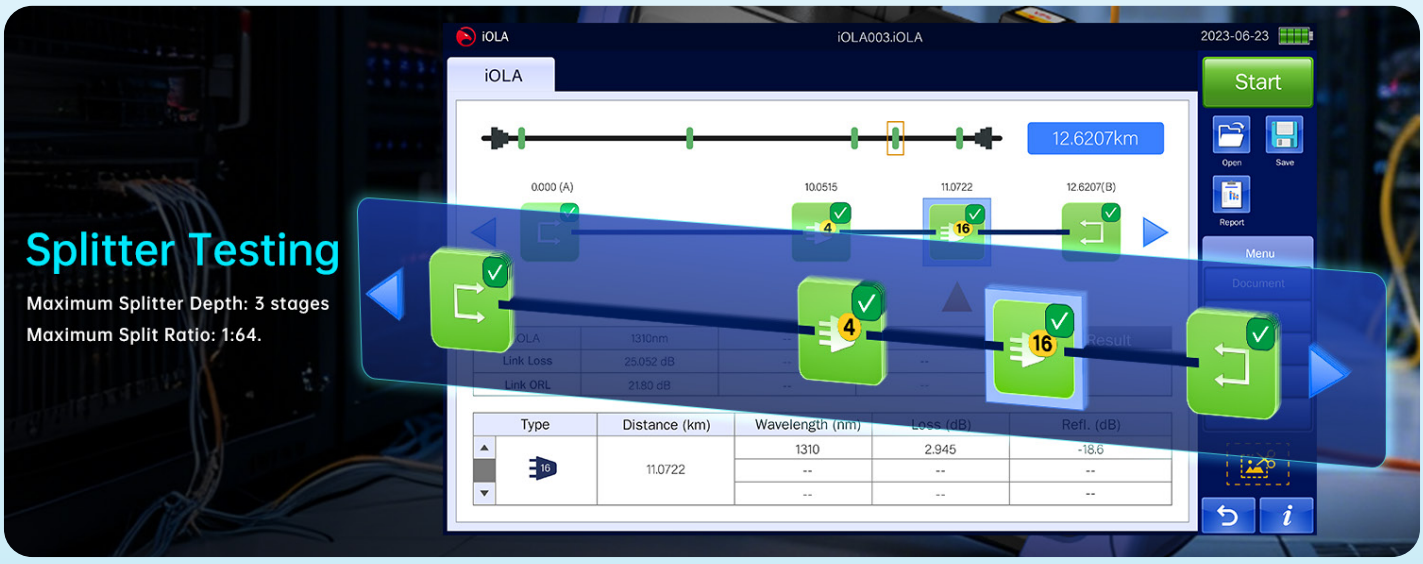
Set the route to be measured in PON mode



Ultra–High SNR Measurement



Sample Measurement: 64–Port Splitter

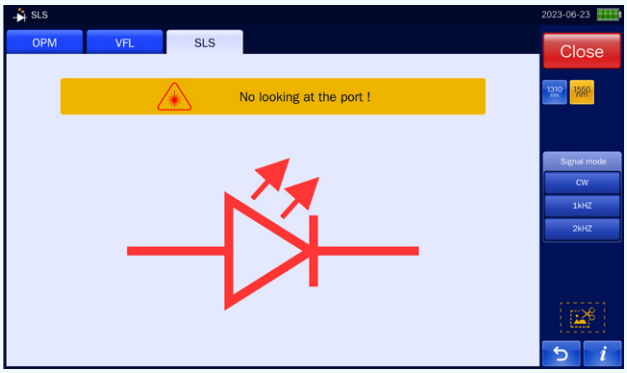


【OPM module (built-in)】

Absolute optical power measurement & relative loss testing.

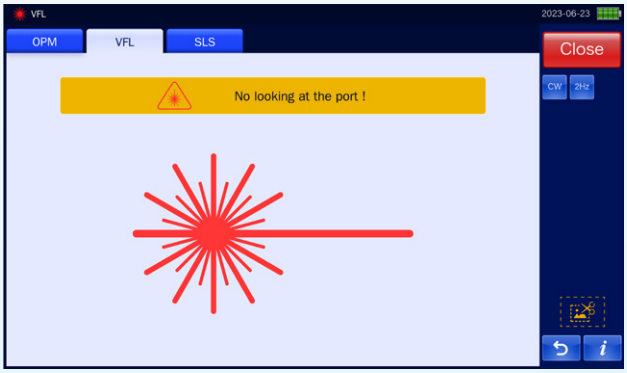
【SLS module (built-in)】

Use this stable light source with a compatible power meter to quantify attenuation in fiber networks.



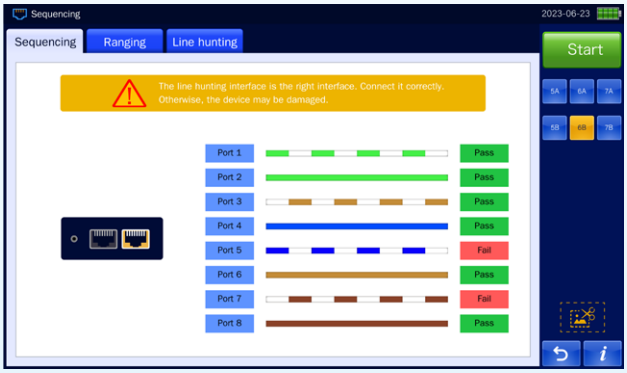
【VFL module (built-in)】

High-stability, high-power output with excellent penetration; dual-mode operation (CW and flash).



【Network test module (built-in)】

Integrated Network Tools: Sequencing, Ranging & Cable Tracing (Optional).

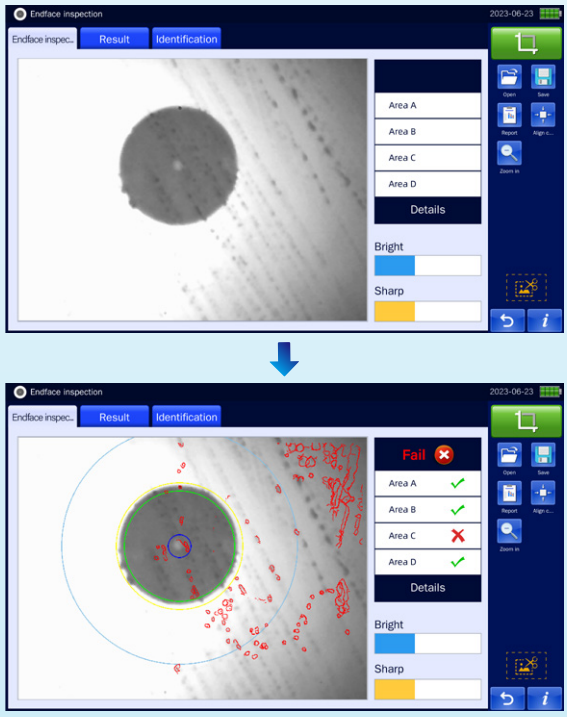


【 Fiber connector inspection module (built-in) 】

The module shows you the connector's surface, add the probe(optional) to automatically flag scratches and dirt. Every image and result is saved, and you can generate a PDF report right away.

FIP → PDF

*Inspect the connector (FIP) → OTDR link characterization.



Fiber Inspection Example

【GPS Positioning Function】

Fault locations are recorded in real time, mapped for accurate traceability, providing a reliable basis for after-sales maintenance and resource auditing.

【Wi-Fi Remote Control】

VNC remote operation – control OCID online via phone/PC for simultaneous multi-site testing.

Telecom Room

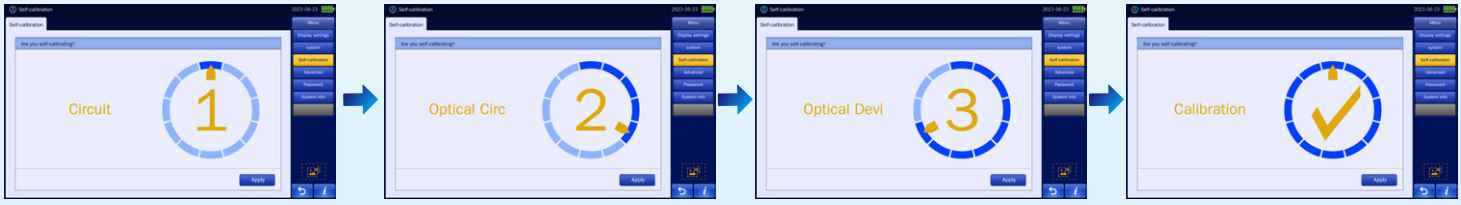
Office

【Wireless Control via Bluetooth Connection】

Headset emits a distinct tone when tapping the target cable, synchronizing with on-screen trace for dual-layer confirmation and higher accuracy.

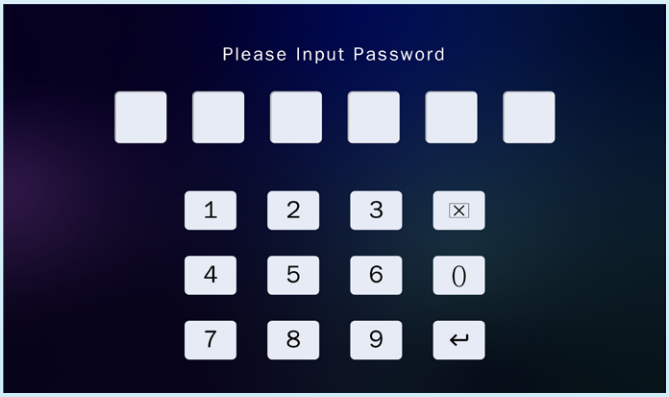
【User-initiated Calibration 】

No More Ship-and-Wait. Just immediate diagnostics and controlled costs.

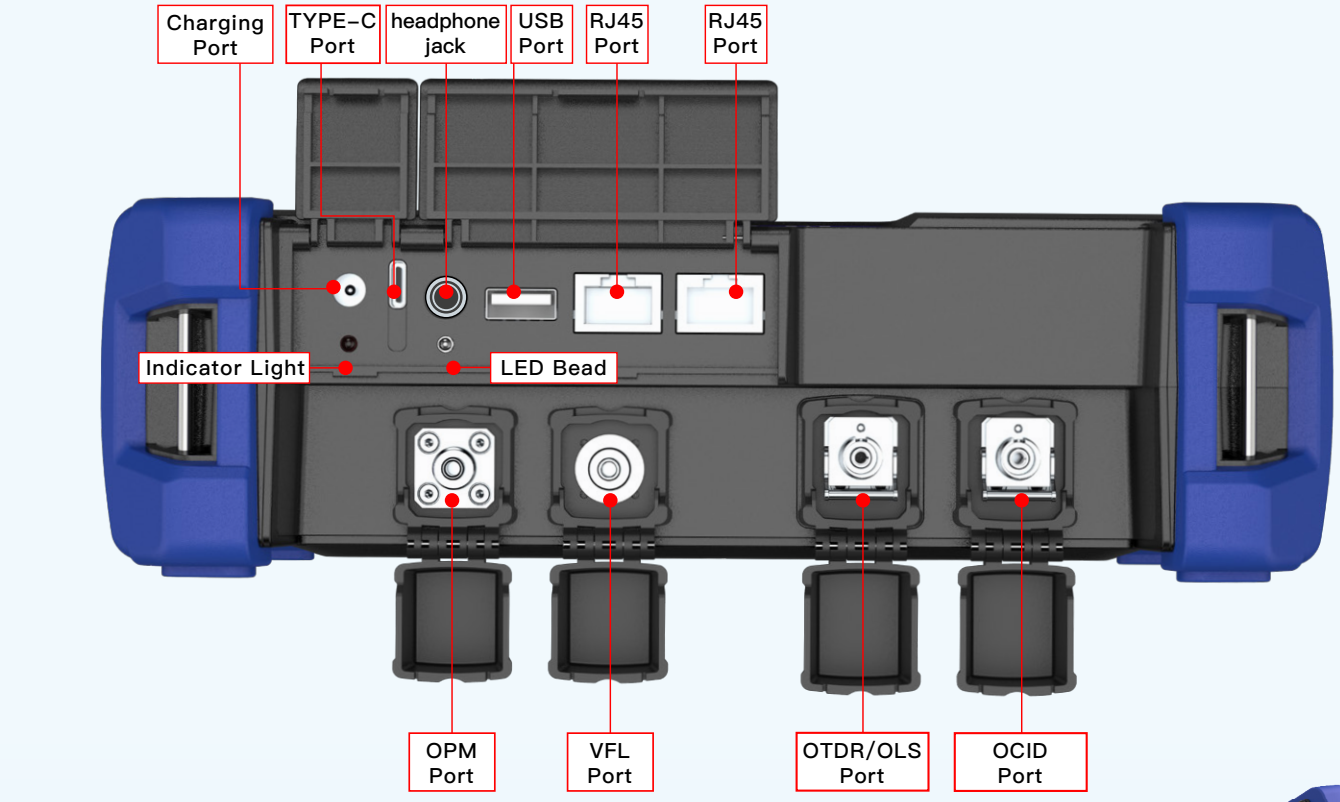


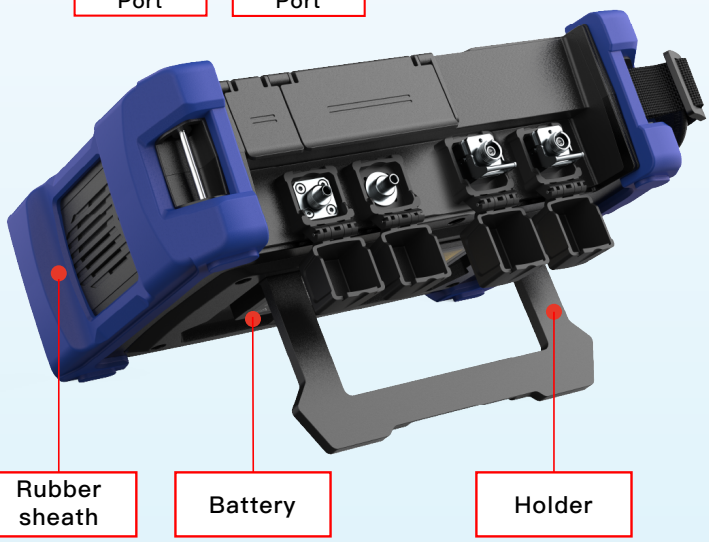
【Power-On Password 】

Lease-to-Use Model: Acquire OCID via a rental agreement with fixed-term installment payments.



【Product Display】





【Packaging configuration】

① Carrying Case

② OCID Main Unit

③ Bluetooth Headset

④ Power Adapter

⑤ Fiber Tapping Rod

⑥ Stylus Pen
(included in case; requires self-assembly)

⑦ Patch cord

【Parameters】

Type		KL-6500			
		AS1	AS2	BS1	BS2
OCID	Maximum Testing Distance(km)	40km		80km	
	wavelength(nm)	1550			
	Sampling Frequency	⩾200KHz			
	ADC Output	⩾16bit			
	Display Mode	Waveform Display / Intensity Display			
OTDR	Wavelength(nm)	1310/1550			
	Dynamic Range(dB)	32/30	35/33	32/30	35/33
	Range(km)	0.1, 0.3, 0.5, 1.3, 2.5, 5, 10, 20, 40, 80, 120, 160, 260, 320			
	Pulse Width(ns)	3, 5, 10, 30, 50, 100, 200, 500, 1000, 2500, 5000, 10000, 20000			
	Event Dead Zone(m)	1			
	Attenuation Dead Zone(m)	3			
	Number of Sampling Points	⩾250000			
	Sampling Resolution	minimum 0.04m			
	Ranging Accuracy	±(0.75 m+measurement distance x2x10-5 +sampling resolution)			
	Loss Accuracy	±0.03 dB/dB			
	Reflection Accuracy	±2 dB			
	Simul. Multi-Wave Testing	Support			
	Simul. Multi-Pulse Testing	Support			
	Splitter Testing	maximum1:32	maximum1:64	maximum1:32	maximum1:64
	Link Map	Support			
	Pass/Fail Display	Support			
	PC Analysis Software	Support			
	Distance Unit	m, vd,ft,km, mile, kft			
Optical Power Meter Module (Built-in)		**Support**			
OPM	Wavelength(nm)	800~1650			
	Calibration Wavelength	850/1300/1310/1490/1550/1577/1625/1650			
	Test Range	-70~+6dBm			
	Accuracy	< (±0.2dB or +5%)			
	Resolution	0.01dB			
	Integrated Fiber Port	2.5mm Universal Ports SC,FC,ST			
Stabilized Light Source Module (Buit in)		**Support**			
SLS	Wavelength(nm)	1310/1550			
	Output Power	⩾-10dBm			
	Modulation Frequency	CW,1 kHz,2 kHz			
	Laser Security Level	Class 1M or Class 1			
	Built-In Fiber Port	OTDR port			

Visual Fault Locator Module (Built-in)		Support
VFL	Wavelength(nm)	650
	Output Power	10mW
	Modulation Mode	CW,CHOP(2 Hz)
	Laser Security Level	Class 3R
	Built-In Fiber Port	2.5 mm Universal Ports FC,SC,ST
Fiber Inspection Probe (Built-in)		**Optional**
FIP	Fiber Inspection	Support Pass /Fail
	Magnification	800X
	Resolution(um)	⩾ 1.0
	Communication Port	USB2.0
	Fiber Port	FC/UPC,SC/UPC,ST/UPC
	CMOS Size	1/3 inch
RJ45 Networks Test (Built-in)		**Support**
RJ45	Network Compatibility	CAT5,CAT6,CAT7
	Cable Pair Length	300m
	Max. Audio Transmission Distance	300m
Bluetooth (Built-in)		**Support**
Bluetooth	Audio Play	Support
WIFI(Built-in)		**Optional**
WIFI	Data Transmission	Support
	Remote Control	Support
GPS Module (Built-in)		**Optional**
GPS	Positioning Accuracy	<50m
	Real-Time Monitoring	Support online monitoring of real-time location

General Specifications		
	Languages	English, Español, Chinese, Português, Français, Русский, ภาษาไทย, 한국어
	Fiber Interface	FC-UPC (SC-UPC, FC/SC-APC Optional)
	Display Screen	7-inch Color LCD Touch Screen (Resolution: 1024x600)
	Interfaces	DC & Type-C
	Audio Interface	3.5mm Jack
	Operating Temperature	-10 to 50°C (0-40°C with power supply, 0 to 35°C for battery charging)
	Storage Temperature	-20 to 60°C
	Altitude	4000 m
	Humidity	0 to 90% RH (at 20%-90% with AC adapter, non-condensing)
	Power Supply Mode	100-240V AC, 50/60Hz (AC Adapter)
	Battery	7.4V, 10500mAh, ⩾77Wh
	LED Flashlight	Luminous Intensity > 15000mcd
	Operating Time*3	12 Hours
	Data Storage	Internal: 10,000 test curves; External: USB
	Dimensions	232 mm (W)x161 mm (H)x 70 mm (D)
	Weight	1.7 kg (Main unit including battery)

Notes: ★①. Minimum pulse width, return loss: ≥55 dB (≥40 dB for 850/1300 nm), group refractive index: 1.5, the unsaturated peak level ＜1.5dB.
★②. Minimum pulse width, group refractive index: 1.5, the backscatter level is >0.5dB of the normal level. For SMF, at 1310nm, return loss: ≥55dB. For MMF, at 850nm, return loss: ≥40dB.
★③. New Battery
All specifications valid at 23°C ± 2°C (73.4°F ± 3.6°F) unless otherwise specified.

Contact us

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