

Fiber Monster OTDR



QX65

KomShine Technologies Limited

FULL RANGE SELECTION

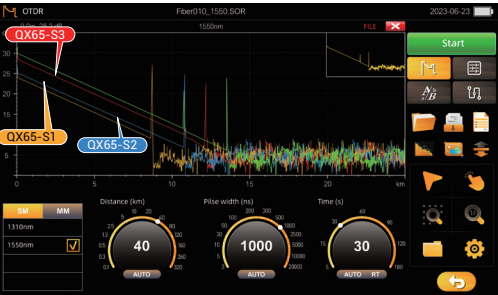
QX65 OTDR comes with an iLOA test function that enables complex front-line test work with less-experience, to support a variety of applications, including installation and maintenance (I&M) of mainline fiber (core network, metropolitan area network, mobile forward, mobile backhaul) and troubleshooting of access networks and FTTx. And combines industry-leading OTDR technology with OPM, VFL, SLS, network testing and fiber end inspection capabilities in one powerful handheld device.

QX65 OTDR Models

Fiber Type	Link Type		Test Application		
	Area	PON	Model / Description	Wavelength (nm)	Dynamic range (dB)
SM	Access network	1x32	QX65-S1 (Entry-level model)	1310 32 1550 30	
			QX65-S2 (Basic model)	1310 35 1550 33	
	Access network / Metropolitan area network	1x64	QX65-P1 (3 Wavelengths + live model)	1310 32 1550 30 1625 28	
			QX65-P2 (High dynamic range wavelengths + live model)	1310 38 1550 36 1625 34	
	Metropolitan network / Core network	1x128	QX65-S3 (Standard model)	1310 40 1550 38	
			QX65-S4 (High dynamic model)	1310 42 1550 40	
MM	LAN		QX65-S5 (Super-high dynamic model)	1310 45 1550 43	
			QX65-M (MM model)	850 20 1300 22	
			QX65-MS (SM&MM model)	850 20 1300 22 + 1310 32 1550 30	

QX65-S1/S2/S3/S4/S5

Dual wavelength module 1310/1550nm,used in fiber installations.



1ps Pulse width trace

QX65-M/MS

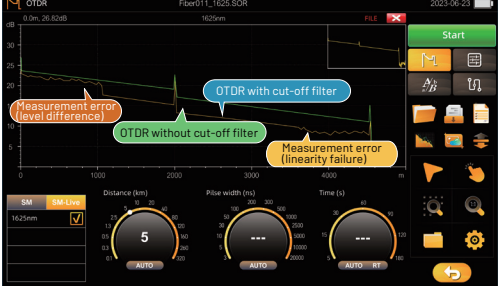
MM model



MM fiber trace

QX65-P1/P2

Maintenance models for real-time communication lines.



Real-time communication line trace



A trace with a macro bend

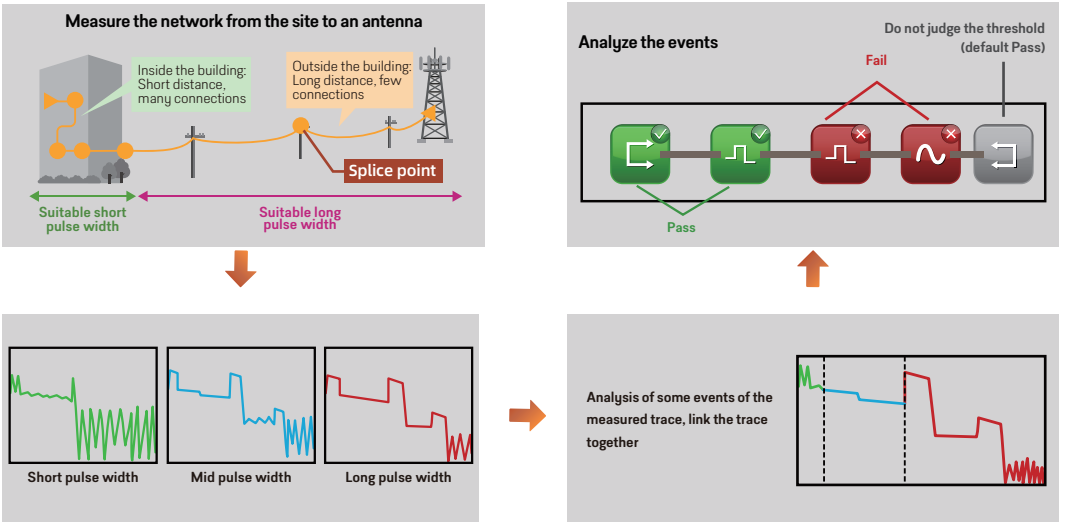
iOLA (HAWKEYE)

OTDR faces a series of challenges:



To address these challenges, KOMSHINE has developed a better way to test fiber links: iOLA (Hawkeye) is an OTDR-based application designed to simplify the OTDR testing process by eliminating the need to configure parameters, analyze and interpret multiple complex OTDR curves. It adopts advanced algorithm, can dynamically define the test parameters, and according to the measured network to determine the appropriate curve acquisition times; Multiple pulse widths at multiple wavelengths can also be correlated to locate and identify faults with very high resolution - all at the touch of a button.

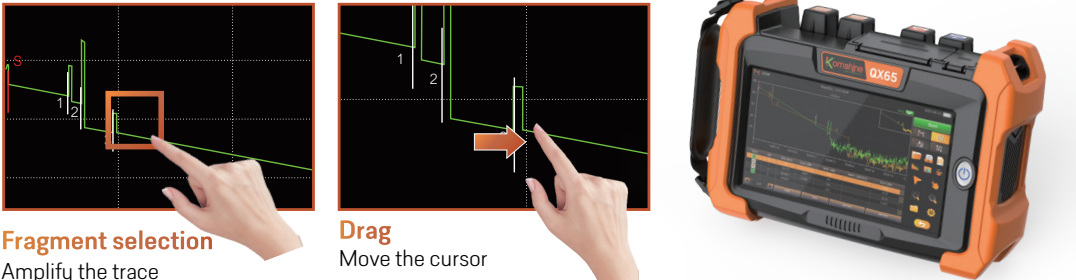
Working principle



OPERABILITY

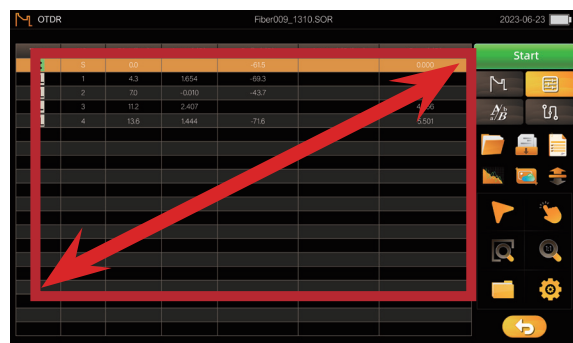
7.0" Multi-Touch Capacitive Touch Screen

It supports new gestures to amplification. The screenshot color is clear. The interface design is simple and clear.



Expand the trace display area

By tapping the icon, you can enlarge the trace display area to view more detail.



Quickly Generate the PDF Report

Built-in post-processing software is used to generate SOR format, which can be viewed and edited by the host computer software; it can also generate PDF test reports for easy viewing on the computer.



Pass & Fail Analysis Function

Automatically perform Pass /Fail judgments for each event based on pre-specified thresholds. The measurement results can be viewed through the result display items (As shown in the red box on the following side).



Smart Map Analyze Links Graphically

With Smart Map, users only need to press one button to execute measurement, detect network events and execute Pass /Fail judgment. It includes a simple icon view that facilitates the location and type of the event, and automatically executes the Pass & Fail judgment of each event based on the prespecified threshold.

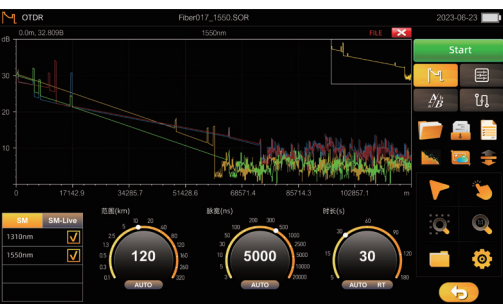


ADVANCED TRACE ANALYSIS

The OTDR master module is capable of performing advanced analysis of measured data.

Multi-Trace Analysis

View multi -trace, can view up to 4 traces at the same time, comprehensive analysis, and the results are more accurate.

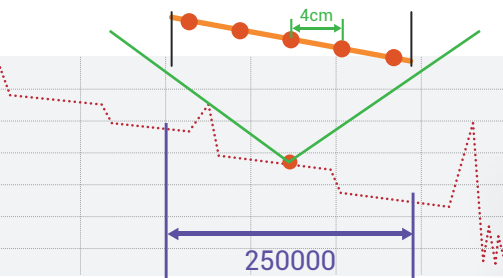


4-Points Testing

Real-time monitoring of splicing and insertion loss, less noise impact, more accurate test results.

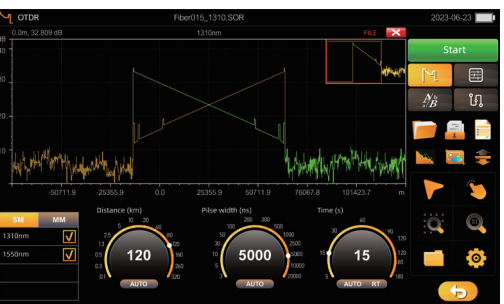


Minimum Sampling Resolution 0.04m Maximum Sampling Points: 250,000



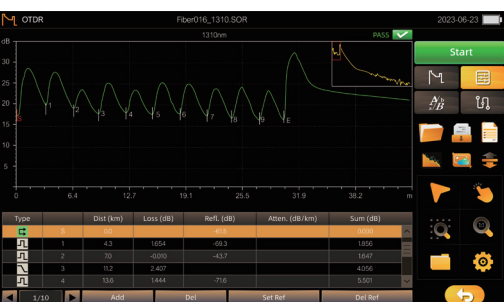
Bidirectional Testing

Averaging values obtained from opposite directions provides a more accurate quantification of losses. Bidirectional testing is a great way to improve test integrity in long distance applications.



10x3m Jumper Test

Short distance testing: Accurately test events and loss.



Battery Working Time: 12 hours



NOT JUST OTDR

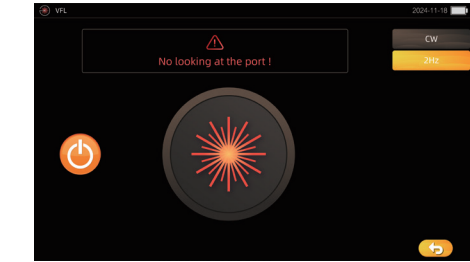
OPM (Built-in)

Used to measure absolute optical power or the relative loss of optical power through a section of fiber link.



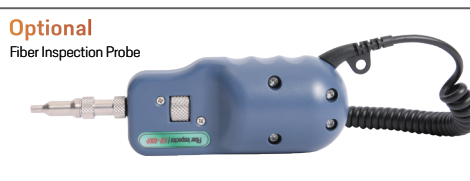
VFL (Built-in)

Visible light sources are usually used for fiber identification, single-mode or multi-mode fiber fault location and fiber identification..



Fiber Connector Inspection Module (Built-in)

The fiber connector end-face inspection module can visualize the surface of the connector, and combine with handle probe(optional) can automatically analyze the scratches and dust on the fiber connector, save the surface image and judge the result. And offer a PDF report.

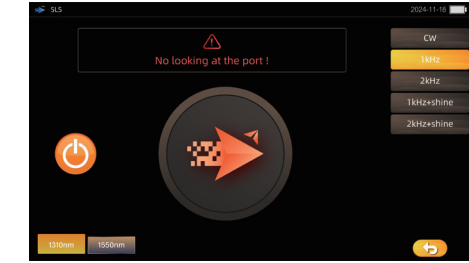


Optional
Fiber Inspection Probe

Save the end face detection file, support host computer viewing and editing
Generate PDF report, which can be viewed on the computer

SLS (Built-in)

Output stable continuous signal, used in combination with an OPM to measure optical loss in fiber optic systems.



Network Test Module (Built-in)

Network line finding, sequencing, and distance measurement are suitable for LAN fault detection, maintenance, and integrated wiring construction.



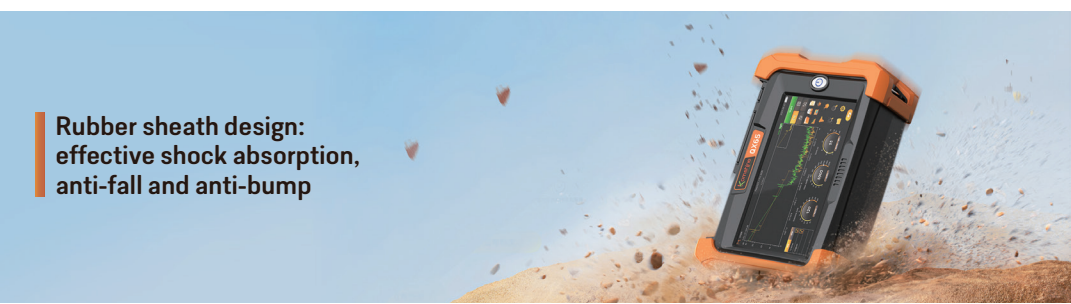
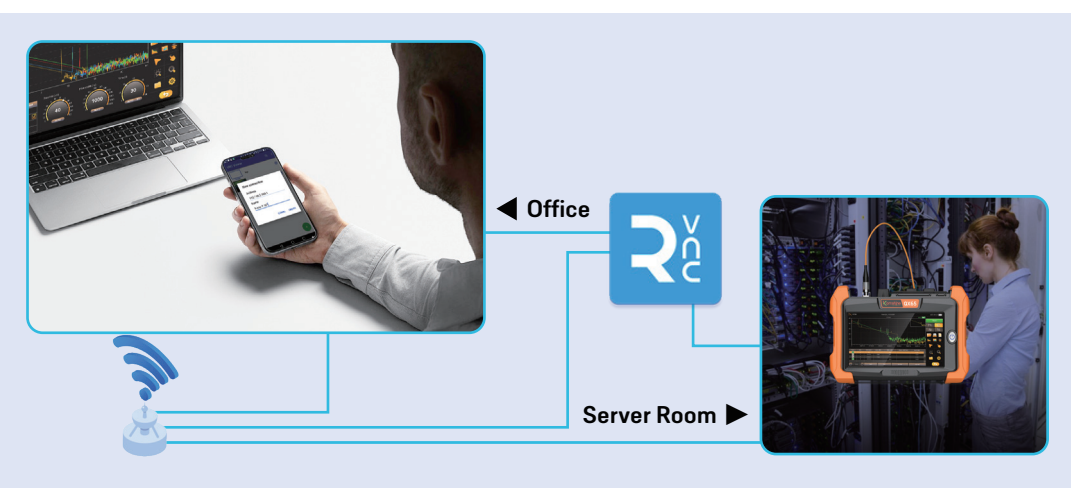
GPS (Module Optional)

Real-time positioning OTDR position and running track



WIFI Remote Control (Built-in)

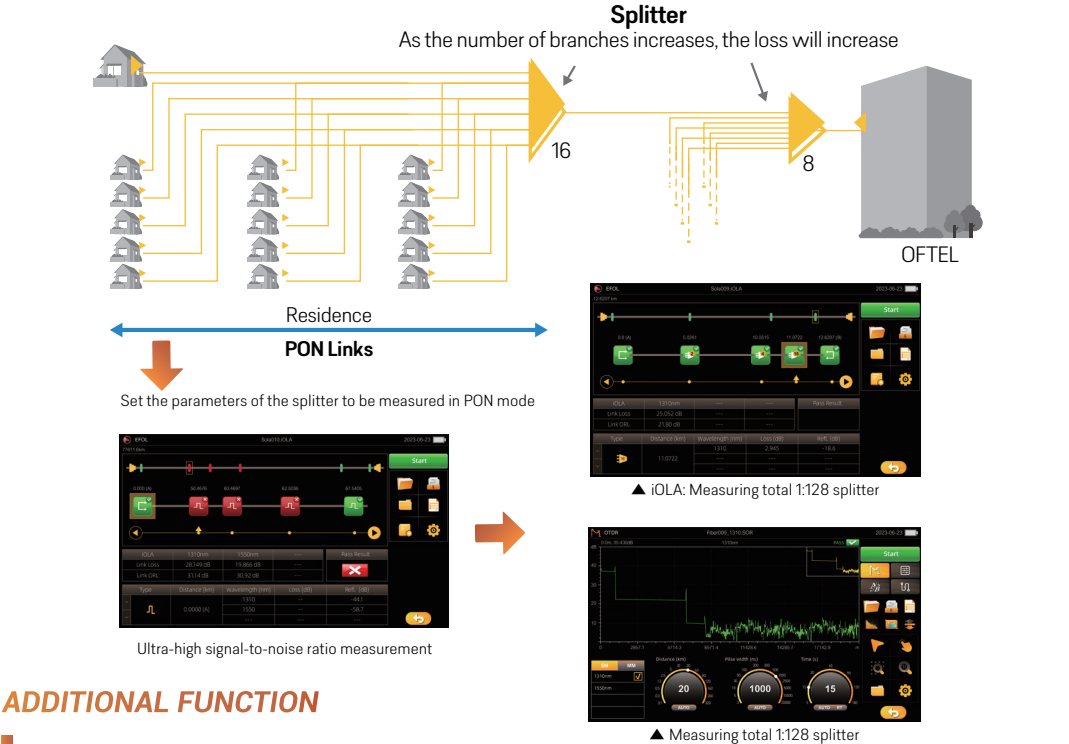
VNC remote control function, using mobile phones or computers online remote operation OTDR easily solve the remote work, can simultaneously take into account multiple room testing, greatly improve efficiency.



PON Optimization

Quickly, easily and correctly measure networks with large losses, such as PON links. In PON mode, simply select the route configuration to be measured on the screen, and OTDR will automatically determine the appropriate measurement conditions and set the optimal value, even after the optical splitter caused large losses, the QX65 OTDR can ensure high trace quality.

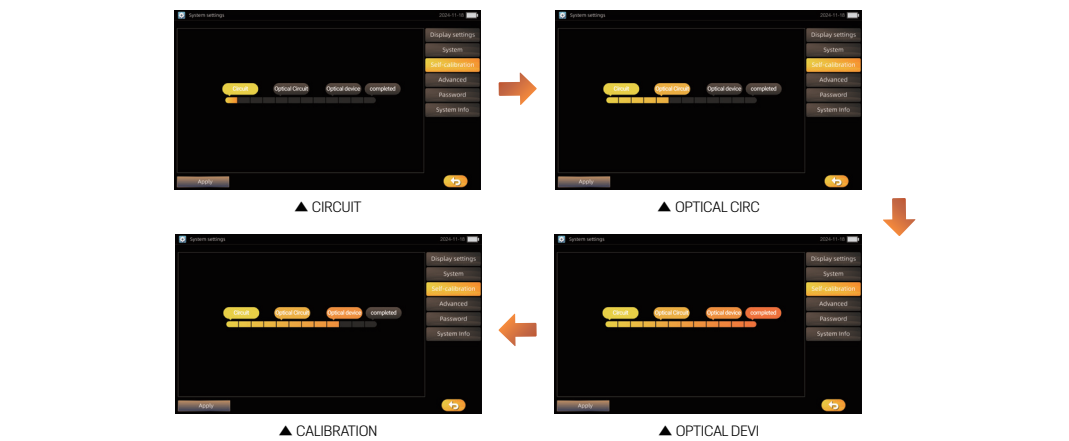
Measuring a residential PON network with two-level splitters



ADDITIONAL FUNCTION

Self Calibration

Shorten maintenance time and reduce maintenance costs.



Power-on Password

Acquire and use OTDR by means of leasing, paying in installments according to the agreed time and amount.



APPEARANCE



Packaging Configuration

- ① Carrying bag x1
- ② OTDR host x1
- ③ Fiber Optic Clean Pen x1
- ④ shoulder strap x1
- ⑤ Power cord x1
- ⑥ Touch pen x1 (Touchpen is equipped inside the box and needs to be installed by self)
- ⑦ Quick guide x1
- Calibration certificate x1
- Test report x1



OTDR Specifications

Model	QX65-S1	QX65-S2	QX65-S3	QX65-S4	QX65-S5	QX65-P1	QX65-P2	QX65-M	QX65-MS
Wavelength (nm)	1310/1550	1310/1550	1310/1550	1310/1550	1310/1550	PON 1310/1550/1625 (built-in filter)	850/1300	850/1300-1310/1550	
Dynamic range (dB)	32/30	35/33	40/38	42/40	45/43	32/30/28	38/36/34	20/22	20/22 32/30
Number of optical port	1	1	1	1	1	2	2	1	2
Event dead zone*① (m)	0.8	0.8	0.8	0.8	0.8	1	1	1.5	SM≤1; MM≤1.5
Attenuation dead zone*② (m)	3	3	2.5	2.5	2.5	3	3	5	SM≤3.5; MM≤5
Multi-fiber Measurement				√				√	√
Multi-pulse Measurement				√				×	√
Splitters Measurement	Max 1:32	Max 1:64	Max 1:128	Max 1:32	Max 1:64	×	×	×	Max 1:32
Applicable fiber	SM (ITU-T G.652)								
Distance 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, 300, 500, 1000, 2500, 5000, 10000, 20000								
Number of sampling points	Max 25,000								
Sampling resolution	Min 0.04m								
Distance measurement accuracy	±(0.75 m + Measurement distance × 2 × 10 ⁻⁴ + Sampling resolution)								
Loss measurement accuracy	±0.03 dB/dB								
Return loss measurement accuracy	±2 dB								

Optical Power Meter Module (Built-in)	√	Visual Fault Locator Module (Built-in)	√
Wavelength (nm)	800 ~ 1650nm	Wavelength (nm)	650±10nm
Measure range	-70 ~ +6dBm	Output power	10mW
Measure accuracy	< (±0.2dB or ±5%)	Modulation mode	CW, CHOP (2 Hz)
Display resolution	0.01dB	Laser class	Class 3R
Optical input port	2.5mm Universal ferrule for FC, SC, ST/UPC	Optical input port	2.5 mm Universal ferrule type for FC, SC, ST

Stabilized Light Source Module (Built-in)	√	General Specifications	
Wavelength (nm)	Same OTDR wavelength	Link Map	√
Output power	≥-10dBm	Pass/Fail judgment	√
Modulation mode	CW, 270 Hz, 1 kHz, 2 kHz	Distance unit	m, km, mile, kf
Laser class	Class 1M or Class 1	PC Analysis Software	√
Optical input port	OTDR port	Languages	English, Español, Chinese, Português, Français, Русский, עברית, 한국어
		Optical connector	FC/UPC (SC/UPC/APC, LC/UPC/APC, FC/APC Optional)
		Display	7-inch touch screen (Resolution: 1024 × 600)
		Port	Charge port × 2, 12V - 2.5A & Type C
		Operating temperature	-10 ~ 50°C (0 ~ 40°C when AC adapter is being used. 0 to 35°C when battery is being charged)
		Storage temperature	-20 to 60°C
		Altitude	4000 m
		Humidity	0 to 90% RH (20 to 90% with 739874 AC adapter, non-condensing)
		Power requirements	100 - 240V AC, 50/60Hz (AC adapter)
		Battery	7.4V, 10500mAh, ≥77Wh
		LED Light illumination	>15000mcd
		Operating time*③	12 hours
		Data storage	Internal storage: ≥10000 traces, External storage: USB memory
		Dimensions	232 mm (W) × 161 mm (H) × 70 mm (D)
		Weight	1.6 kg (including internal battery and protectors)

GPS Module (Built-in)	Optional
GPS	
Location accuracy	< 50m
Real-time Monitoring	support

WIFI Module (Built-in)	√
WIFI	
Data transmission	√
Remote Control	√

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.