IVR-OTDR-BL Series
Portable Smartphone OTDR Test Set

IVR-OTDR-BL Series OTDR is entirely new portable product released by InterVRE. Adopting Bluetooth technology allows engineers to conduct the test remotely on their portable Android devices.

It has rapid start technology and supports automatic and real-time test mode, which can guarantee engineers to examine and detect optical fibers or cables in core, metro, and access network with high flexibility, efficiency, and convenience.

Product images are for illustrative purposes only and may differ from the actual product.

- Potable and light weight design, easy to carry
- Remote control by Bluetooth
- Maximum support of three wavelengths, and PON (splitters) function
- Supports VFL, light source, power meter, and iOTA functions
- Quick backup and data share through 4G/3G/WiFi/Bluetooth/USB anytime and anywhere
- Generates encrypted PDF reports with GPS information and the capability of adding location and workplace photos

InterVRE

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FEATURES

- Full OTDR functions to meet all requirements for fiber link maintenance
- Markers for distance, attenuation, reflectance, and splice loss
- Dynamic range up to 43 dB
- Supports 1625/1650 to test live fiber
- SR-4731.sor file formats
- Support VFL
- Support power meter (Optional)
- Support light source (Optional)
- Support iOTA (Optional)
- Maximum event dead zone of 1.5m
- Maximum attenuation dead zone of 6m
- Minimum sampling resolution of 12.5cm and maximum sampling points up to 256,000
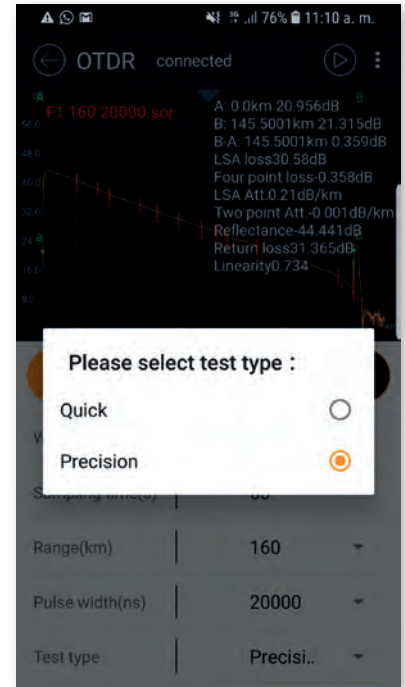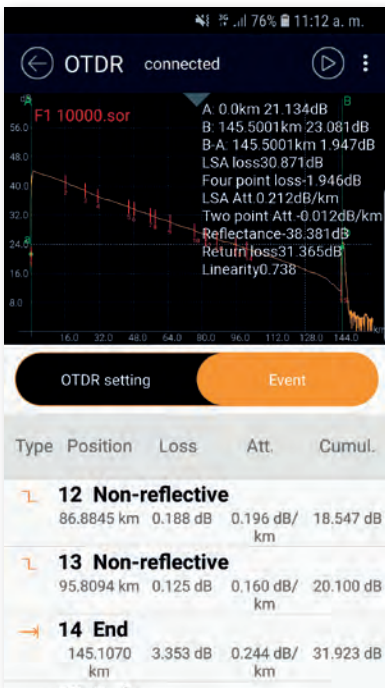- Remote measurement via Bluetooth by using IVR-OTDR APP

IVR-OTDR APP
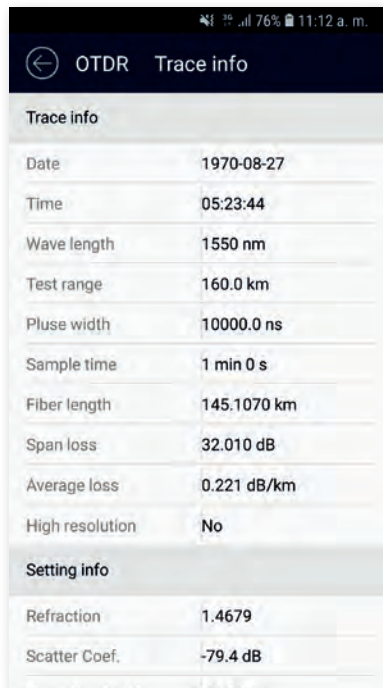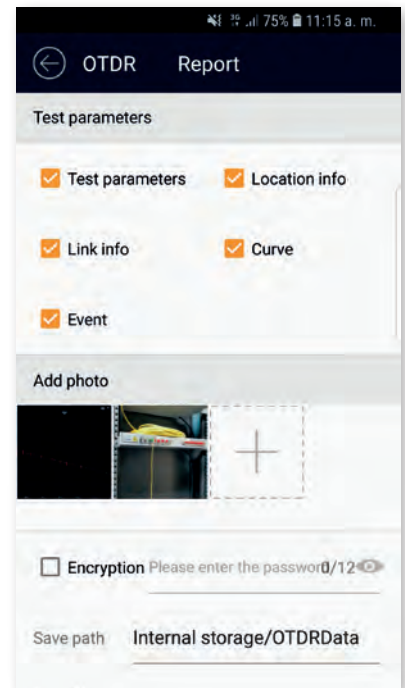

IVR-OTDR main interface
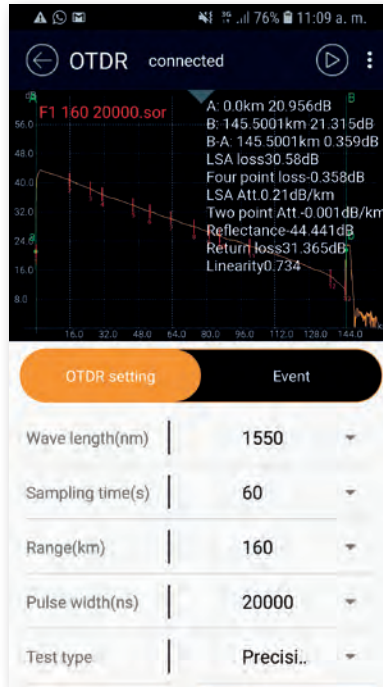
Settings

Test type

Event list

Trace info

Create report

IVR-OTDR APP
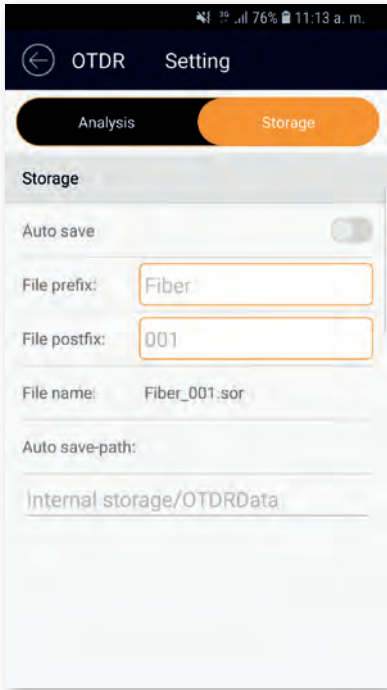
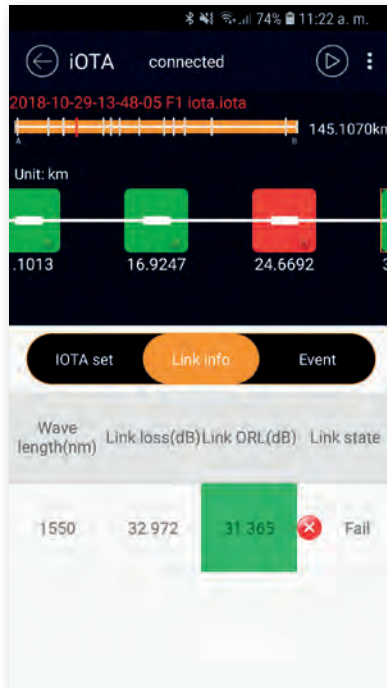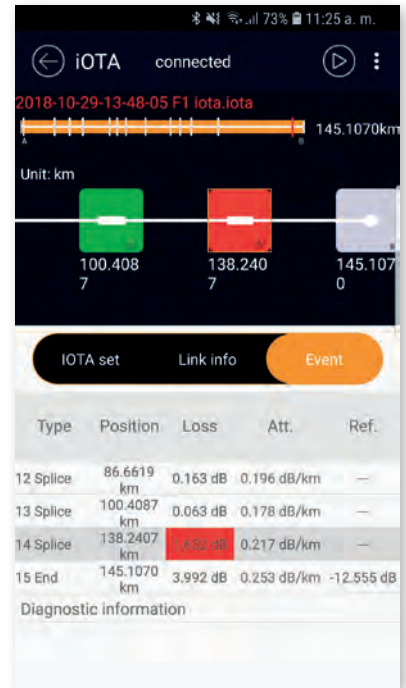**Save file**
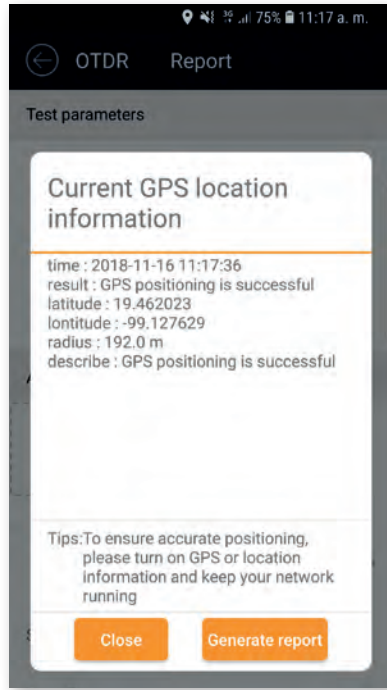
GPS information

Open file
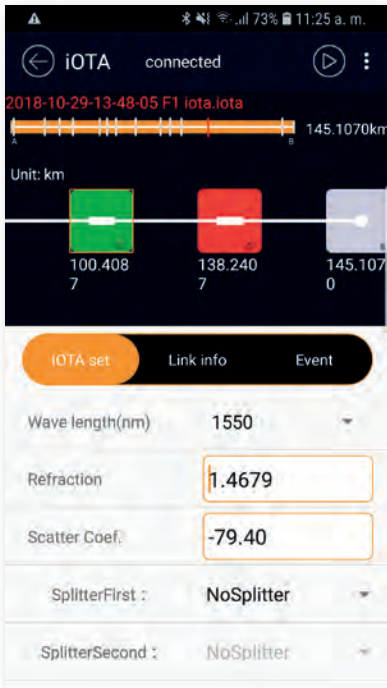
iOTA settings

Link info

Event list

iOTA under IVR-OTDR-BL

Traditional OTDR only can display loss and event list of fiber link. Event types and link topology requires an experienced engineer to analyse manually. However, rapid growth of FTTH deployment demand definitely increases engineer's workload and operator's labour cost. iOTA function of IVR provides more comprehensive analysis of fiber link, assists engineer to deploy, operate, and maintain optical fiber network more easily.

Traditional OTDR Trace Interface

iOTA – Intelligent Optical Link Topology Analysis
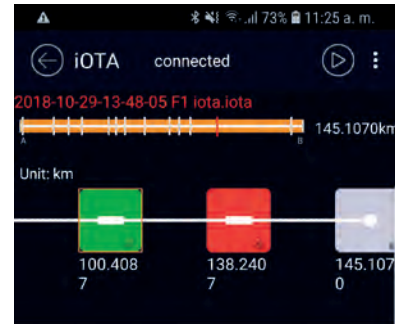
iOTA Test Principles

iOTA intelligently combines different pulse widths, only needs one time and one button can get loss and return loss of fiber and splitter. Multiple pulse acquisition and algorithm can deliver more detail information of every element of the fiber link.
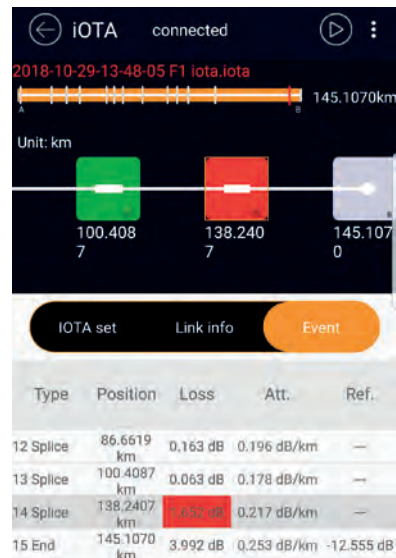
Using multiple pulse for data acquisition

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Analyse data repeatedly

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Manage multiple analysis data

Multiple test only need to press ONE button, no longer need to analyse curve manually

Models

Product	Wavelength	Dynamic Range
IVR-OTDR-43BL	1310/1550nm	43/42dB
IVR-OTDR-40BL	1310/1550nm	40/39dB
IVR-OTDR-35BL	1310/1550nm	35/34dB
IVR-OTDR-32BL	1310/1550nm	32/30dB
IVR-OTDR-40BLF	1310/1550/1625nm	40/39/39dB
IVR-OTDR-40BLF	1310/1490/1550nm	40/39/39dB
IVR-OTDR-35BLF	1310/1550/1625nm	35/34/34dB

IVR-OTDR-BL Series General Specifications

GENERAL SPECIFICATIONS	
Other Interface	
USB	Micro USB port, type B, 1
Bluetooth	Support
Other Parameters	
Storage	16G
Size and Weight	196(H) x 95(W) x 42(D) mm; 450g
Temperature	Operating: -5°C to 40°C; Storage: -30°C to 60°C
Relative Humidity	0% to 95% (non-condensing)
EMC	EN55022/CIPSR22; EN61000-3-2; EN55024
Battery and Power Supply	
Battery	● Rechargeable Li-Lon battery; ● Working time: 8 hour (typical: 25°C); ● Charging time: <6 hours (typical: 25°C)
Power Supply	● Input: 100-240V AC, 50-60Hz, 2A; ● Output: 5V DC, 2.5A, Micro USB Port

Technical Specifications

General Specifications		
Wavelength	1310 ± 20 / 1550 ± 20nm	1490 ± 20 / 1625 ± 10 / 1650 ± 7nm
Dynamic Range (SNR=1) at 25℃	30 to 43 dB Typical at 20us	39/39/39 dB Typical at 20us
Fiber under Test	9μm/125μm single-mode optical fiber (ITU-T G.652)	
Pulse Width	3, 5, 10, 30, 50, 100, 275, 500, 1000, 5000, 10000, 20000 ns	
Distance Range	0.5, 2.5, 5, 15, 40, 80, 120, 160, 200, 250, 300, 350, 400 km	
Event Dead Zone	≤ 1.5 m	
Attenuation Dead Zone	≤ 6 m	
Sampling Resolution	0.125 ~ 2m	
Sampling Points	256K	
IOR	1.30000 to 1.80000	
Linearity	±0.03 dB/dB	
Distance Uncertainty	±(0.75+0.0050%×distance + sampling resolution) m	
Measurement Time	5s~180m, Real time, user defined	
OTDR Port	● FC/PC (Standard) ● SC/PC (Optional) ● LC/PC (Optional)	● FC/APC(Standard iOTA) ● SC/APC(Optional iOTA) ● LC/APC(Optional iOTA)
File Format	SR-4731.sor	
Remote Control	Bluetooth	
APP	IVR-OTDR APP (Android)	
VFL	Wavelength	650 ± 20nm
	Output Power	+1 μW
	Operation mode	CW, 1Hz
Power Meter (Optional)	Wavelength	780 to 1800nm
	Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625nm
	Measurement range	+10 to -60 dBm
	Resolution	0.01 dB
Light Source (Use OTDR port, Optional)	Wavelength	Same with current test wavelength
	Output power	>-4 dBm
	Operation mode	CW, 270Hz, 330Hz, 1KHz, 2kHz
Intelligent Optical Link Topology Analysis (Optional)	Intelligently combine different pulse width, one time get loss and return loss of fiber and splitter. Multiple pulse acquisitions and algorithms to deliver detail information of every element on the fiber link.	
GPS (Optional)	GPS Tracker	
Laser Safety	IEC 60825-1: 2007: CLASS 1; 21 CFR 1040.10	

Standard Configuration

ACCESORIES
1 FC/APC to FC/PC single-mode fiber, 3m, when iOTA option is ordered
1 IVR-OTDR 100-240V input and 5V output AC/DC power adapter
1 USB Driver with user manual and IVR-OTDR APP
1 IVR-OTDR-BL Package
1 Calibration certification
One year warranty card

IVR-OTDR-BL OPTIONAL CONFIGURATION	
Optional Software	
IVR-OTDR-BL-P	1310/1550nm power meter, range between +10 to -60 dBm (Not available on filtered 1490/1625/1650 option)
IVR-OTDR-BL-S	1310/1550nm > -4 dBm light source capability
IVR-OTDR-BL-I	Intelligent fiber link topology analysis option
Optional Hardware	
IVR-OTDR-BL-W	Two years extended warranty service

● *InterVRE reserves the right to alter and amend the design, characteristics and specifications without notice or obligation.*

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