

IVR-OTDR

Handheld OTDR Test Set



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

IVR-OTDR Series OTDR Tester is an entirely new product released by InterVRE. It has rapid start technology and supports automatic and realtime test mode, which guarantee engineers to examine and detect optical fibers or cables in core, metro, and access network with high flexibility, efficiency, and convenience.

Its operation system interface has a friendly and easy to use GUI that simplifies the test procedure and report generation.

- ALL-IN-ONE with OTDR, iOTA, iNET, OPM, OLS, VFL and Fiber Scope
- Results can be exported to PDF
- More comprehensive test features with higher performance-to-price ratio
- 5.6-inch touchscreen
- Friendly keystroke designed for easy user interface
- Lightweight, rugged, and flexible for field testing
- Fast start-up, high resolution colour touch display

FEATURES

- One Button 'Auto' Test
- Novice mode with automatic trace diagnostics, one-button setup and events detection
- Markers for distance, attenuation, reflectance, and splice loss
- Dynamic range up to 43dB
- SR-4731.sor file formats
- VFL (Optional)
- iOTA (Optional)
- OPM optical power meter (Optional)
- OLS optical light source (Optional)
- Event dead zone $\leq 1.5\text{m}$
- Attenuation dead zone $\leq 6\text{m}$
- Minimum sampling resolution of 4cm
- Sampling points up to 256,000
- Remote measurement via RJ45 connection using IVR OTDR desktop software

IVR-OTDR-501 Series Handheld OTDR Test Set has 2 models to meet various test environment:

Product	Wavelength	Dynamic Range
Regular OTDR		
IVR-OTDR-43	1310/1550nm	43/42 dB
IVR-OTDR-40	1310/1550nm	40/39 dB
IVR-OTDR-35	1310/1550nm	35/34 dB
IVR-OTDR-32	1310/1550nm	32/30 dB
Filtered OTDR		
IVR-OTDR-40Fa	1310/1550/1625nm	40/39/39 dB
IVR-OTDR-40Fb	1310/1490/1550/1625nm	40/39/39/39 dB
IVR-OTDR-40Fc	1310/1550/1625nm	40/39/39 dB
IVR-OTDR-40Fd	1310/1490/1550/1625nm	40/39/39/39 dB

You may optionally add any of the following alone or combined:

- P to include Power meter
- I to include iOTA
- V to include VFL
- S to include light source
- G to include GPS

For example IVR-OTDR-40Fc-PIVSG is a filtered OTDR working in 1310/1550/1650 nm with 40/39/39 dB dynamic range that also have power meter, iOTA, VFL, light source and GPS.



OTDR
(SC or FC connector) VFL OPM
(SC or FC connector)



USB Micro USB RJ45 Power

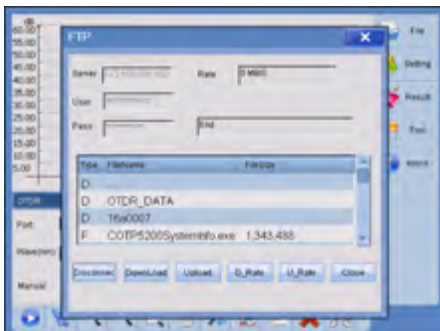
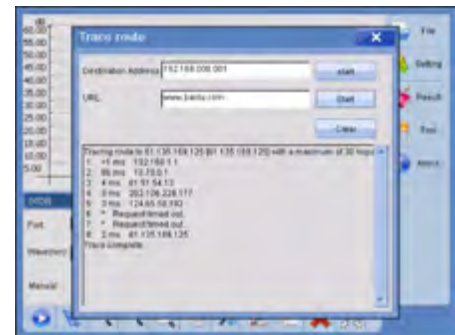
iNET – Intelligent Network Test Tool

Traditional OTDR only can determine the defects occurred in physical optical fibers. However, during the installation and maintenance of FTTH, it is always required to determine the defects occurring in data layer. The iNET function of InterVRE integrates common Ethernet testing methods, such as Ping, Traceroute, FTP, and HTTP to efficiently verify Ethernet performance and greatly reduce operation costs.

Network test tool -- Ping



Network test tool -- Traceroute



Network test tool -- FTP

iOTA —Intelligent Optical Link Topology Analysis

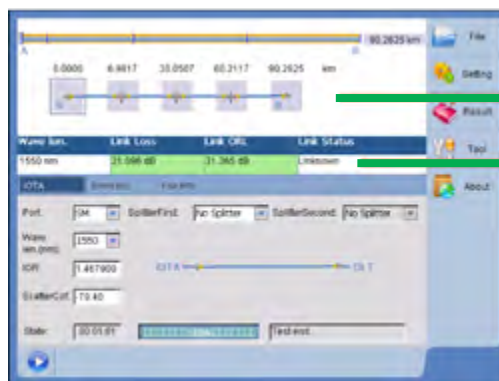
Traditional OTDR only displays loss and event list of fiber link, therefore event types and link topology require an experienced engineer to analyse and identify problems. Rapid growth of FTTH deployment definitely increases engineer’s workload and operator’s labour cost. iOTA function of InterVRE provides more comprehensive analysis of fiber link, assists engineer to deploy, operate, and maintain optical fiber network easily and rapidly to reduce this costs.

Traditional OTDR Trace Interface



Seeing this graphic you don't know if there's a problem

iOTA—Intelligent Optical Link Topology Analysis



Link topology chart

Link information

With the iOTA option you clearly identify problems with a color code

iOTA Test Principles

Using just one button, iOTA intelligently combines different pulse widths to get events, total loss and return loss of fiber and splitter. Multiple pulse acquisition and algorithm delivers detailed information of every element of the fiber link, without the need of engineers to take several measurements.

Uses multiple pulses for data acquisition



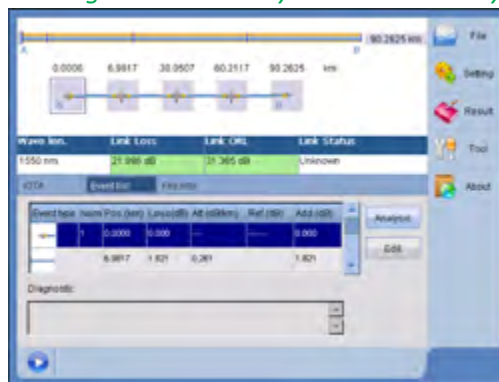
Analyse data repeatedly



Merges multiple analysis data and gives a detailed screen report



Multiple test by only pressing ONE button, no longer need to analyse curve manually!



Specifications

General Specifications	
Screen	5.6 inch TFT touch screen (640×480)
USB	USB type A, 1 port
Ethernet	10/100M Base-T, RJ45
Storage	16G
Size and Weight	161 (H) x 210 (W) x 46(D) mm; 1.0 kg
Temperature	Operating: -10°C to 50°C; Storage: -40°C to 70°C
Relative Humidity	0% to 95% (non-condensing)
EMC	EN55022/CIPSR22; EN61000-3-2; EN55024
Battery	Rechargeable Li-Ion battery Working time: 5 hour / Charging time: <3 hours (typical: 25°C)
Power Supply	Input: 100-240V AC, 50-60Hz, 2A / Output: 15V DC, 2A

Technical Specifications			
Wavelength (nm)	1310 ± 20 nm 1550 ± 20 nm	1490 ± 20 nm 1625 ± 10 nm	1650 ± 7 nm
Dynamic Range (dB) (SNR=1) at 25°C	30 to 43 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, 240 km		
Event Dead Zone	≤ 1.5 m		
Attenuation Dead Zone	≤ 6 m		
Sampling Resolution	0.04 to 2 m		
Sampling Points	256K		
IOR	1.30000 to 1.80000		
Linearity	±0.05 dB/dB		
Distance Uncertainty	±(0.75+0.0050%×distance + sampling resolution) m		
Measurement Time	1s to 300s, Real time		
OTDR Port	FC/PC(Standard), FC/APC(Standard with iOTA) Optional: SC/PC, LC/PC, SC/APC, LC/APC		

Technical Specifications		
VFL (Optional)	Wavelength	650 ±20nm
	Output Power	+10 dBm
	Operation mode	CW, 1Hz
Power Meter (Optional)	Wavelength	780 to 1800 nm
	Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625 nm
	Measurement range	+10 to -60 dBm
	Resolution	0.01 dB
Light Source (Use OTDR port, Optional)	Wavelength	1310/1550 ±20 nm
	Output power	> -4 dBm
	Operation mode	CW, 270Hz, 330Hz, 1KHz, 2kHz
GPS		GPS tracker optional
Intelligent optical link topology analysis iOTA (Optional)		Intelligently combining different pulse widths with just pushing one button to get loss and return loss of fiber and splitter. Multiple pulse acquisitions and algorithms to deliver detailed information of every element on the fiber link.
Intelligent network test tools iNET (Optional)		The iNET includes PING, Trace Route, FTP upload and download, and HTTP features for Ethernet Link Fault check testing.
Laser safety		IEC 60825-1: 2007: CLASS 1; 21 CFR 1040.10

ORDERING INFORMATION	
Accessories Code	Accessories Description
16090170	1 FC/APC to FC/PC single-mode fiber, 3m, with iOTA
16080030	1 FC/PC to FC/PC single-mode fiber, 3m, without iOTA
43170030	1 IVR-OTDR 100-240V input and 15V output AC/DC power adapter
47110030	1 IVR-OTDR lithium polymer rechargeable battery, 10.8V
18080010	1 IVR-OTDR USB user manual and InterVRE OTDR analysis PC software
19070080	1 IVR-OTDR soft case
18010010	1 Factory test report
18010020	1 Calibration certification
18040011	One year warranty card
18080050	1 cotton bud

IVR-OTDR Series OPTIONAL CONFIGURATION

Optional Software

IVR-OTDR-xxx-I	Intelligent optical link topology analysis option
IVR-OTDR-xxx-N	Intelligent network test tools, include PING, Trace Route, FTP, and HTTP

Optional Hardware

IVR-OTDR-xxx-P	1310/1550nm optical power meter, range between +10 to -60 dBm
IVR-OTDR-xxx-S	1310/1550nm > -4 dBm optical light source
IVR-OTDR-xxx-F	Visual Fault Locator wavelenth 650 ± 20 nm, output power 10 μW, operation mode CW, 1Hz
IVR-OTDR-xxx-G	GPS tracker
IVR-1warranty	One year extended warranty service
IVR-2warranty	Two years extended warranty service
47110030	1 IVR-OTDR lithium polymer rechargeable battery, 10.8V

Product ordering information may update along with the product upgrade, please refer to the final version provided by our sales.

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

Sales Contact and Technical Support

Tel: +52 5584374485 / +52 5621385218 / +52 5514749712

Email: jessica.garcia@intervre.com / heber.vallejo@intervre.com

Address: Av. Río Consulado 1674-A, Vallejo, Gustavo A. Madero, C.P. 07870, Ciudad de México, México

Web: www.intervre.com