

# IVR-6123

## Handheld OTDR Test Set



IVR-6123 series is interVRE's handheld OTDR test set. It provides comprehensive optical test for metro, access/FTTx, and LAN network. Also IVR-6123 is designed for indoor and outdoor test with lightweight, flexible and rugged features. It is the best test set for service providers validating at installing phase or troubleshooting at running phase.

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

- Lightweight, rugged, flexible for field testing
- Fast start-up, high resolution color touch display
- Friendly keystroke designed for easy, flexible input and select
- Covering all OTDR functions, dual-wavelength for different test demand
- More comprehensive test features with higher performance-to-price ratio
- 250km distance range satisfy metro and access optical network test application
- FTTx/MDU PON—network test

## *Lightweight and Flexible Designed, Simple and Efficient Test*

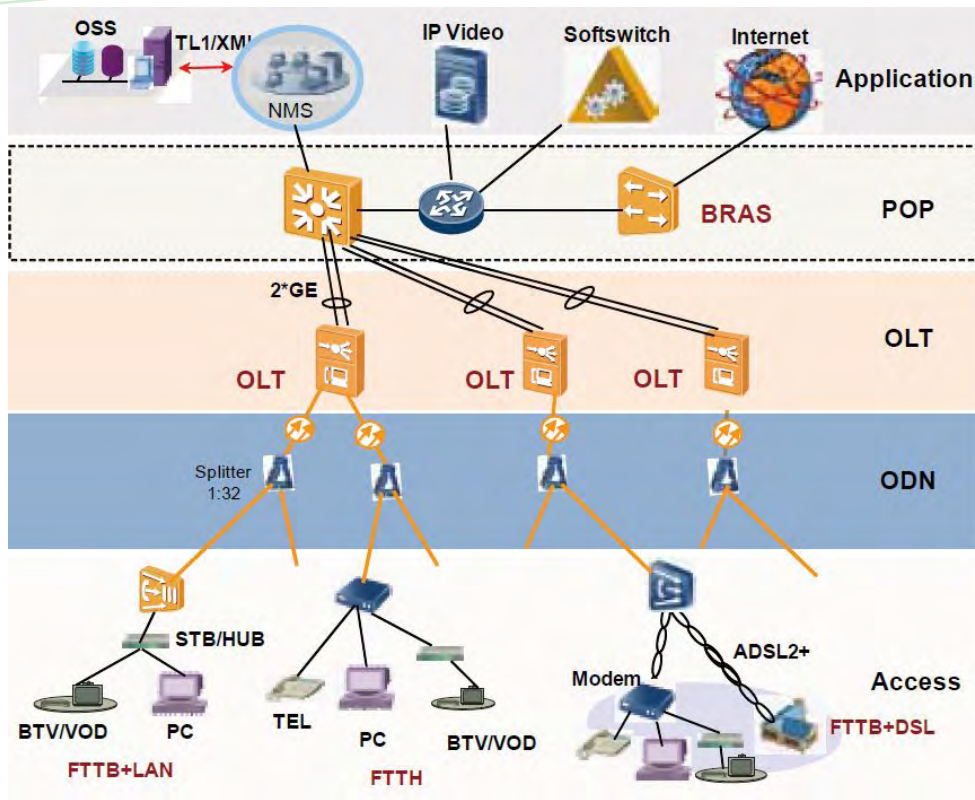


## *Main Features*

- High resolution color display, great visibility for easy reading and operating even under direct sunlight.
- Shockproof designed for field application.
- Easy detecting and characterizing fiber with simple and friendly keys.
- Covering all OTDR functions for whole optical link testing and maintaining.
- PON OTDR supports maximum 4 wavelengths(1310/1490/1550/1625nm) for fiber testing, and automatical switching dual-wavelength OTDR testing.
- Regular OTDR provides more flexible dynamic range: 45dB,40dB, 35dB and 30dB.
- Event dead zone of 0.8m and attenuation dead zone of 4.5m for pinpoint event location.
- Support VFL function and optional support optical power meter function.

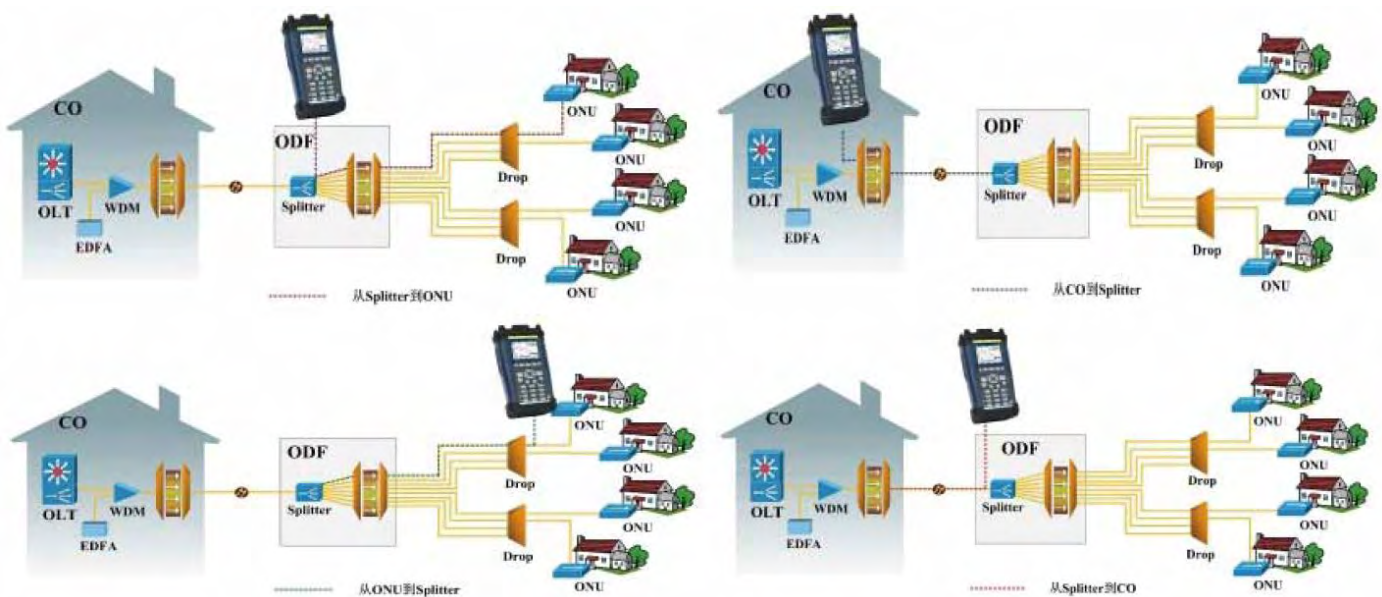
## *Fiber Optical Network Testing*

OTDR has become a must test equipment for installing, monitoring and troubleshooting of optical network. As increasingly demand of high bandwidth service, fiber optical network is rapidly expanding. InterVRE's IVR-6123 handheld OTDR test set provides more comprehensive fiber test functions and more accurate test result, which could help network experts ease installation, operation and maintenance of fiber optical network.



## OTDR Tests

During installation, OTDR should be performed after the installation of every single cabled fiber section. InterVRE's IVR-6123 handheld OTDR test set supports OTDR test of each section in fiber optical network with accurate test results.



Test fiber optical network with IVR-6122 simultaneously will better evaluate the network. IVR-6122 handheld test set performs 6 functions of fiber link, such as loss, optical power, ORL etc.

## Configuration

IVR-6123 handheld OTDR test set accommodates 11 configurations for different user demand which is more flexible.

Product	Wavelength	Dynamic Range
IVR-6123E	1310/1550nm	45/43dB
IVR-6123H	1310/1550nm	40/39dB
IVR-6123N	1310/1550nm	35/34dB
IVR-6123L	1310/1550nm	30/28dB
IVR-6123P	1310/1550/1625nm	39/37/38dB
IVR-6123-a	1310/1490/1550nm	39/37/37dB
IVR-6123-b	1310/1550/1650nm	39/37/38dB
IVR-6123-c	1310/1490/1550/1625nm	39/37/37/38dB
IVR-6123-d	1310/1490/1550/1650nm	39/37/37/38dB
IVR-6123-e	1625nm	38dB
IVR-6123-f	1650nm	38dB

## IVR-6123 Series Specifications

Regular OTDR Specifications				
	IVR-6123E	IVR-6123H	IVR-6123N	IVR-6123L
Wavelength (nm)	1310/1550	1310/1550	1310/1550	1310/1550
Dynamic Range (dB)	45/43	40/39	35/34	30/28
Pulse Width(ns)	3-20000	3-20000	3-20000	3-20000
Event Dead Zone(m)	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8
Attenuation Dead Zone(m)	≤ 7/7	≤ 7/7	≤ 7/7	≤ 7/7
Linearity(dB/dB)	± 0.03	± 0.03	± 0.03	± 0.03
Loss Threshold(dB)	0.01	0.01	0.01	0.01
Loss Resolution (dB)	0.001	0.001	0.001	0.001
Sampling Resolution(m)	0.125 ~ 1	0.125 ~ 1	0.125 ~ 1	0.125 ~ 1
Sampling Points	256K	256K	256K	256K

# IVR-6123 OTDR Series

## Regular OTDR Specifications

Distance Uncertainty(m)		$\pm (0.75+0.0010\% \times \text{distance} + \text{sampling resolution})$			
Distance Range(km)		≤ 250	≤ 200	≤ 180	≤ 150
Typical Real-time Refresh(Hz)		0.03	0.03	0.03	0.03
Memory Capacity		500 traces	500 traces	500 traces	500 traces
Measurement Time		10s~180m ,user-defined			
VFL	Output Power (dBm)	+3	+3	+3	+3
Optical Power Meter	Measurement Range (dBm)	+ 10 to - 60	+ 10 to - 60	+ 10 to - 60	+ 10 to - 60
	Wavelength Range (nm)	780 to 1800	780 to 1800	780 to 1800	780 to 1800

## Regular OTDR Physical Specifications

Temperature	Operating: -10°C to 50°C; storage: -40°C to 70°C			
Relative Humidity	0% to 95% (non-condensing)			
Size (H×W×D)	80 mm x 135 mm x 250 mm			
Weight	1.1 kg			
Power Supply	Li-Ion batteries 8 hours of continuous operation as per Bellcore TR-NWT-001138			

## PON OTDR Specifications

	IVR-6123P	IVR-6123-a	IVR-6123-b	IVR-6123-c	IVR-6123-d	IVR-6123-e	IVR-6123-f
Wavelength (nm)	1310 /1550 / 1625	1310 /1490 / 1550	1310 /1550 / 1650	1310 /1490 /1550 /1625	1310 /1490 /1550 /1650	1625	1650
Dynamic Range (dB)	39/37/38	39/37/37	39/37/38	39/37/37/38	39/37/37/38	38	38
Pulse Width(ns)	3-20000	3-20000	3-20000	3-20000	3-20000	3-20000	3-20000
Event Dead Zone(m)	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8	≤ 0.8
Attenuation Dead Zone(m)	≤ 7/7/7	≤ 7/7/7	≤ 7/7/7	≤ 7/7/7/7	≤ 7/7/7/7	≤ 7	≤ 7
Linearity(dB/dB)	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03
Loss Threshold(dB)	0.01	0.01	0.01	0.01	0.01	0.01	0.01



# IVR-6123 OTDR Series

## PON OTDR Specifications

Loss Resolution (dB)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Sampling Resolution(m)	0.125~ 1	0.125~ 1	0.125~ 1	0.125~ 1	0.125~ 1	0.125~ 1	0.125~ 1	0.125~ 1
Sampling Points	256K	256K	256K	256K	256K	256K	256K	256K
Distance Uncertainty(m)	$\pm (0.75+0.0010\% \times \text{distance} + \text{sampling resolution})$							
Distance Range(km)	≤ 180	≤ 180	≤ 180	≤ 180	≤ 180	≤ 180	≤ 180	≤ 180
Typical Real-time Refresh(Hz)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Memory Capacity	500 traces	500 traces	500 traces	500 traces	500 traces	500 traces	500 traces	500 traces
Measurement Time	10s~180m, user defined							
VFL	Output Power (dBm)	+3	+3	+3	+3	+3	+3	+3
Optical Power Meter	Measurement Range (dBm)	+10 to -60	+10 to -60	+10 to -60	+10 to -60	+10 to -60	+10 to -60	+10 to -60
	Wavelength Range (nm)	780 to 1800	780 to 1800	780 to 1800	780 to 1800	780 to 1800	780 to 1800	780 to 1800

## PON OTDR Physical Specifications

Temperature	Operating: -10°C to 50°C; storage: -40°C to 70°C
Relative Humidity	0% to 95% (non-condensing)
Size (H×W×D)	80 mm x 135 mm x 250 mm
Weight	1.1 kg
Power Supply	Li-Ion batteries 8 hours of continuous operation as per Bellcore TR-NWT-001138

## ORDERING INFORMATION

Category	Model	Description
<b>Standard Configuration</b>		
Main Frame	IVR-6123E	Dual-wavelength 1310/1550nm OTDR tester, dynamic range 45/43dB
	IVR-6123N	Dual-wavelength 1310/1550nm OTDR tester, dynamic range 35/34dB
	IVR-6123L	Dual-wavelength 1310/1550nm OTDR tester, dynamic range 30/28dB
	IVR-6123P	Tri-wavelength 1310/1550/1625nm PON OTDR tester, dynamic range 39/37/38dB
	IVR-6123-a	Tri-wavelength 1310/1490/1550nm PON OTDR tester, dynamic range 39/37/37dB
	IVR-6123-b	Tri-wavelength 1310/1550/1650nm PON OTDR tester, dynamic range 39/37/38dB
	IVR-6123-c	Qua-wavelength 1310/1490/1550/1625nm PON OTDR tester, dynamic range 39/37/37/38dB
	IVR-6123-d	Qua-wavelength 1310/1490/1550/1650nm PON OTDR tester, dynamic range 39/37/37/38dB
	IVR-6123-e	Single-wavelength 1625nm PON OTDR tester, dynamic range 38dB
IVR-6123-f	Single-wavelength 1650nm PON OTDR tester, dynamic range 38dB	
Battery	LB03V10S0103	One 1 parallel 3 series Lithium polymer rechargeable battery for IVR-6100, 10.8V
Power Adapter	SA148A-24V	One 24V AC/DC, power adapter for IVR-6100
Power Cabel	OA1611PWR_2M	One 2-mete-long power cable
Disc	IVR_6123_CD	One IVR-6123 disc
Package	IVR-OBG6100	One IVR-6100 package
Fiber Jumper	FCFC-0103	One FC/FC port, single-mode, simplex, 9/125, 3-meter-long
VFL Function	IVR-OP-VFLatOTDR	OTDR red light VFL testing option
<b>Optional Configuration</b>		
Functional Option	IVR-OP-PMatOTDR	OTDR optical power PM testing option
	IVR-OP-LSatOTDR	OTDR single-mode optical source testing option
	IVR-OP-iOTA	Intelligent fiber link topology analyzer option
	IVR-OP-iNET	Intelligent network performance tool option

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

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