

A palm sized, feather weight, rugged, reliable tool for fiber optics verification



Functions

- Optical time domain reflectometer (OTDR)
- Optical Laser Source (LS) and Power Meter (PM)
- FTTx ready Passive Optical Network (PON) testing
- Maximum 4 wavelengths, single mode and multimode
- 25dB to 43dB dynamic range
- Fiber inspection probe

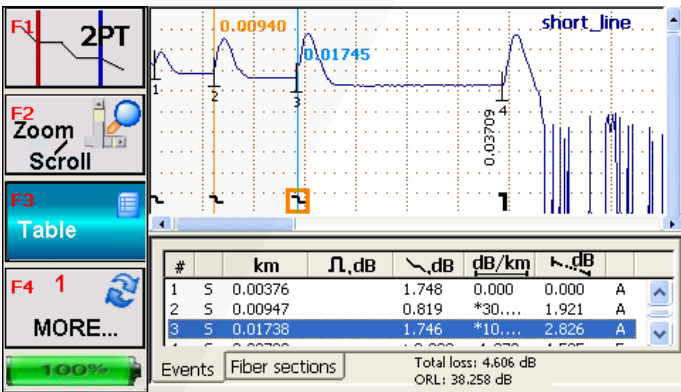


Productivity

- 10 seconds boot-up time
- 9 hours long battery operation with power management
- Context sensitive help
- Palm sized and feather weight (1.5 lb/0.7 kg)
- Bright TFT LCD with shortcut key operation
- Reporting and post analysis software
- external USB (A/B) interfaces for firmware upgrade and file transfer

Integrity

- High speed (< 5 sec) automatic trace analysis
- Telcordia data format SR-4731
- Remote Fiber Test System (RFTS) support

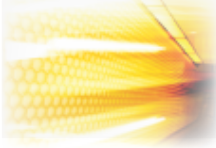


Advantages

- High speed trace analysis in less than 5 seconds
- User-friendly, comfort, economical and easy solution for various fiber optic measurements in network installation, in-service work or search for fiber faults
- Carrying out a measurement on fiber network of any type of Transport, Metro, Access and FTTx networks
- Palm sized and feather weight (0.7kg with battery included)
- Built-in optical light source and power meter for standard (-65 ... +7 dBm) and high (-45 ... +27 dBm) power levels
- Multi-wavelengths measurement by single click to start and macro-bend detection
- Batch operation by recording and playing back operational macros
- Automatic one-touch mode for new users and manual mode for experienced users
- One-touch, easy macro-bend and trace-binding bidirectional test modes
- Pass/Fail indicator with threshold settings
- Automatic trace analysis and Template mode to compare several traces simultaneously
- 500 traces can be saved in the internal memory with Windows style file management system
- Flexible connection interfaces with PC software for advanced post analysis and storage repository

Configuration Chart

Models	Wavelengths (nm)					Dynamic Range (SNR=1 dB)	Event Dead Zone (m)	Attenuation Dead Zone (m)
	850±20	1300±20	1310±20	1550±20	1625±20			
OPX-150S			✓	✓		27/25	2.4	9.0
OPX-150A			✓	✓	✓	31/29/28	2.4	9.0
OPX-150F			✓	✓	✓	37/35/34	1.6	6.2
OPX-150T			✓	✓	✓	39/37/36	1.6	6.2
OPX-150L			✓	✓	✓	42/40/39	1.4	9.0
OPX-150Q	✓	✓	✓	✓	✓	29/31/37/35/34	1.0	4.0



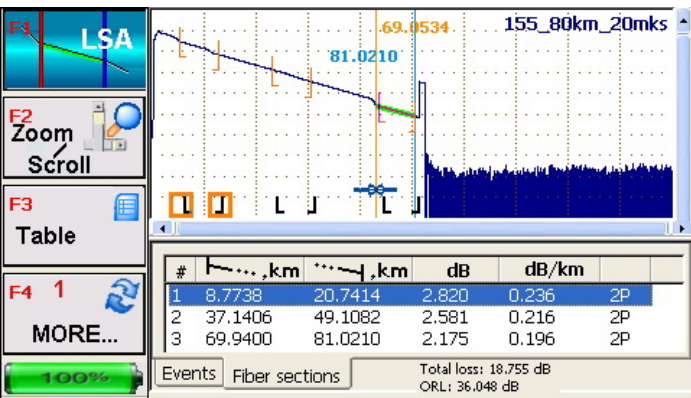
Applications

The OPX-150 series makes the OTDR technology available to all levels of fibreoptics verifications in a lightweight, compact and easy-to-use integrated unit. There are four pre-configured models of OPX-150 to satisfy all applications from short-range Access, long-range Transport, mid-range FTTx, Metro and Ethernet networks.

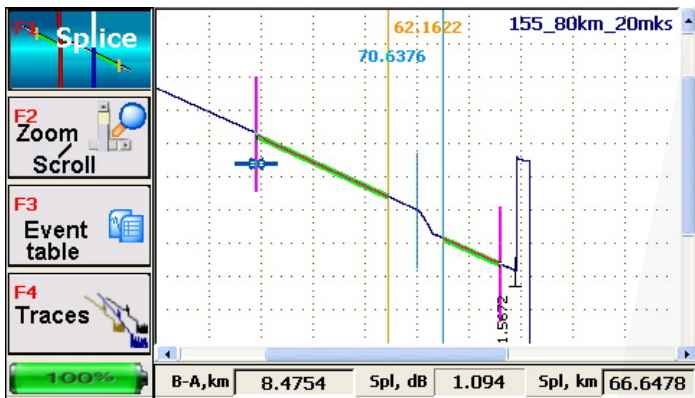
The OPX-150 can support any single mode/multimode OTDR configurations up to four wavelengths by choosing from 850, 1300, 1310, 1490, 1550 and 1625 nm wavelengths designed for

- FTTx and Access fiber network testing
 - Service premises fiber network certification
- Metro fiber network maintenance
 - WDM transport network construction and installation

With Passive Optical Network (PON) option added, OPX-150 can also measure optical characteristics of fiber network through high-loss 1x8 or 1x32 distribution couplers. Hardware option of circulator coupler can also increase 2dB of dynamic range for single mode wavelengths.



Separate lines of the Events Table indicate a complete attenuation and ORL in the line

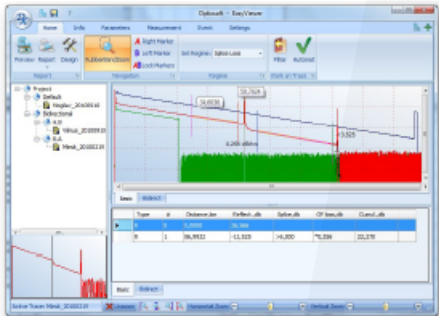


Automation with attenuation definition for five markers

Reflect sor Viewer

Reflect software application supports advanced post-processing, reporting, data acquisition and file management for OPX-150. Specifically designed for off-line analysis, Reflect offers intuitive graphical user interface for the best productivity.

- Advanced customizable reporting
- Remote database repository
- Bidirectional analysis
- Batch operation recording and playback



Specifications

	System				OTDR						
Display	3.5" TFT LCD 16-bit color				Atten. resolution		0.001 dB				
Memory	64MB internal memory, USB pen-drive				Distance accuracy		±(0.5 + resolution + 5x10-5xL) m				
PC connection	USB (Type A and Type B)				Atten. accuracy		0.05 dB				
Power supply	rechargeable 9-hr battery with AC/DC adapter				Sampling res.		0.16 ... 7.6 m				
Dimensions	160 (h) x 90 (w) x 67 (d) mm				Sampling points		up to 64,000				
Weight	0.7 kg / 1.5 lb with battery				Optical connector		FC, ST, SC				
	Single Mode										
	Dynamic Range (SNR=1, dB)						Event Dead Zone (m)		Attenuation Dead Zone (m)		
	1310±20 nm		1490±20 nm		1550±20 nm		1625±20 nm				
OPX-150S	27		N/A		25		N/A		2.4		9.0
OPX-150A	31		27		29		28		2.4		9.0
OPX-150F	37		33		35		34		1.6		6.2
OPX-150T	39		35		37		36		1.6		6.2
OPX-150L	42		39		40		39		1.4		9.0
Pulse width	6, 12, 25, 100, 300, 1000, 3000, 10000, 20000 ns										
Distance range	0.5, 2, 5, 10, 20, 40, 80, 120, 160, 240 km										
	Single Mode & Multimode										
	Dynamic Range (SNR=1, dB)						Core Diameter (µm)		Event Dead Zone (m)		Attenuation Dead Zone (m)
	1310±20	1490±20	1550±20	1625±20	850±20	1300±20	850±20	1300±20			
OPX-150Q	37	33	35	34	29	31	50/62.5	50/62.5	1.0		4.0
Pulse width	8, 25, 100, 300, 1000, 3000, 10000, 20000 ns (Single Mode); 8, 25, 100, 300, 1000 ns (Multimode)										
Distance range	5, 10, 20, 40, 80, 120, 160, 240 km (Single Mode); 5, 10, 20, 40, 80 km (Multimode)										
	Laser Source										
Wavelength	1310±20 nm			1490±20 nm			1550±20 nm			1625±20 nm	
Output power	> -4 dBm										
Power instability	< ± 0.05 (15 min)										
Operating mode	continuous mode / pulsed mode with a modulation frequency of 2 KHz										



Built-in Power Meter

		Power Meter					
Wavelength		650 ± 10 nm	850 ± 5 nm	1310 ± 5 nm	1490 ± 5 nm	1550 ± 5 nm	1625 ± 5 nm
Power Range dBm	PS	-30 ... +3	-60 ... +3	-65 ... +7			
	PH	-10 ... +23	-40 ... +23	-45 ... +27			
Accuracy % (dB)	PS	±12 (±0.5)	±8 (±0.33)	±5 (±0.22)			
	PH	±12 (±0.5)	±8 (±0.33)	±5 (±0.22)			
Linearity % (dB):	PS	±6 (±0.25)	±4 (±0.17)	±2.5 (±0.11)			
	PH	±6 (±0.25)	±4 (±0.17)	±2.5 (±0.11)			
Resolution dB		0.01					
		Single Mode Laser Source					
Wavelength		1310 ± 20 nm	1490 ± 20 nm	1550 ± 20 nm	1625 ± 20 nm		
Output Power dBm	LS	> -10					
Power instability, dB		less than ± 0.01 (15 min)					
Operating mode		continuous mode / pulse mode with modulation frequency of 270 Hz, 1 KHz or 2 KHz					

Ordering Information

Model	Description	Ordering Information	
	Wavelength index: 8 - 850nm, 0 - 1300nm, 3 - 1310nm, 5 - 1550nm, 6 - 1625nm		
OPX-150S	1310 nm - 27 dB 1550 nm - 25 dB Dead zone event - 2.4 m attenuation - 9.0 m	2 w avelengths OPX-150S-35	
	OPX-150A	1310 nm - 31 dB 1550 nm - 29 dB 1625 nm - 28 dB Dead zone event - 2.4 m attenuation - 9.0 m	2 w avelengths OPX-150A-35, 36, 56 3 w avelengths OPX-150A-356
OPX-150F		1310 nm - 37 dB 1550 nm - 35 dB 1625 nm - 34 dB Dead zone event - 1.6 m attenuation - 6.2 m	2 w avelengths OPX-150F-35, 36, 56 3 w avelengths OPX-150F-356 with PON filtered
	OPX-150T	1310 nm - 39 dB 1550 nm - 37 dB 1625 nm - 36 dB Dead zone event - 1.6 m attenuation - 6.2 m	2 w avelengths OPX-150T-35, 36, 56 3 w avelengths OPX-150T-356 with PON filtered
OPX-150L		1310 nm - 42 dB 1550 nm - 40 dB 1625 nm - 39 dB Dead zone event - 1.4 m attenuation - 9.0 m	2 w avelengths OPX-150L-35, 36, 56 3 w avelengths OPX-150L-356 with PON filtered
	OPX-150Q	1310 nm - 37 dB 1550 nm - 35 dB 1625 nm - 34 dB 850 nm - 28 dB (50/125 mkm) 29 dB (62.5/125 mkm) 1300 nm - 30 dB (50/125 mkm) 31 dB (62.5/125 mkm) Dead zone event - 1.0 m attenuation - 4.0 m	2 w avelengths OPX-150Q-38, 30, 58, 50, 68, 60, 80 4 w avelengths OPX-150Q-3568, 3580, 3680, 5680
Connectors			
ASC	APC/SC connector	USC	UPC/SC connector
AST	APC/ST connector	UST	UPC/ST connector
UFC	UPC/FC connector		
Options			
PS	Power meter -65 .. +7 dBm	6 calibration w avelengths	
PH	Power meter -45 .. +27 dBm	6 calibration w avelengths	
LS	Light Source	Laser source	
CI	Circulator coupler	Circulator coupler for 1310, 1550 and 1625nm to increase Dynamic Range by 2dB	

