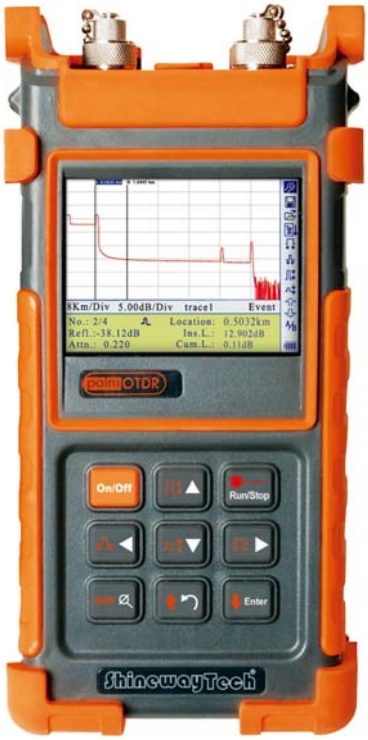
palmOTDR Series Handheld OTDR

Most Compact High-Performance OTDR



- Comprehensive fiber applications, ideal for LAN/WAN/FTTx certification & trouble-shooting:
  SM: 1310/1490/1550, 1625/1650nm (with filter), up to 45dB
  MM: 850/1300nm, 21/24dB
- Fault locating, fiber length/loss measurement, connector/ splice/ splitter/ macro bend/fiber-end detection
- Built-in PON Power Meter for Triple-play live measurement
- Optional Stabilized Laser Source, SM/MM Power Meter and VFL
- FTTx in-service testing/ Testing through splitter: (1625/1650nm with filter)
- Splitter & fiber-end identifiable
- Auto/Manual(2-point/5-point)/Averaging/Real-time test
- Pass/Fail assessment and ORL test function
- Quick start: <5 seconds
- Perfect user interface, handheld & lightweight (1kg)
- Hotkeys: Easiest operation in the world, push-and-test
- 1000 test records storage
- Bellcore file format (.sor)
- PC software for batch data processing
- USB/RS-232 data interface, driver-free
- Multiple languages: EN/DE/IT/FR/ES/PT/RU/KR/VN/CN etc.
- 8 hrs continuous operation/20 hrs standby
- Dust-shock proof (2m drop test)
- CE, FCC, FDA certificates

The compact palmOTDR now offers even more testing capacities, flexibility and value with combination of 850/1300/1310/1490/1550/1625/1650nm (Mono/double/triple wavelength) OTDR, 1310/1490/1550nm PON Power Meter, Stabilized Laser Source and VFL. The OTDR wavelengths cover the applications of regular end-to-end fiber characterization (1310/1550nm), premise/enterprise LAN testing (850/1300nm), FTTx fiber link construction verification (1490nm) and PON live fiber troubleshooting (1625/1650nm with filter). The integrated PON Power Meter can perform in-service testing of all PON signals (1310/1490/1550nm) on any spot of the network featuring pass-through design and burst mode support. palmOTDR is your ultimate solution to meet various testing requirements of entire fiber network.

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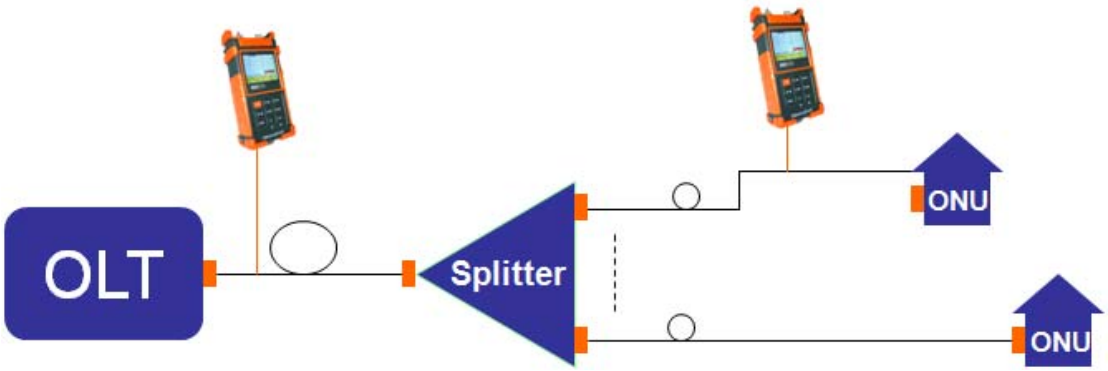
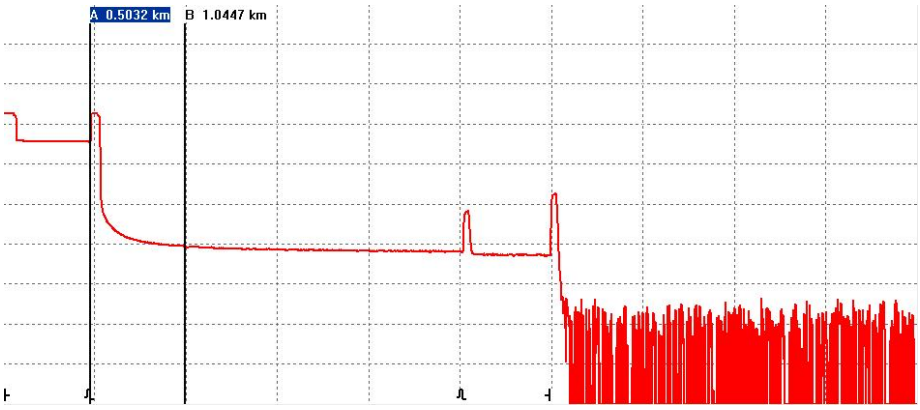
- In-service testing (1625nm with filter)

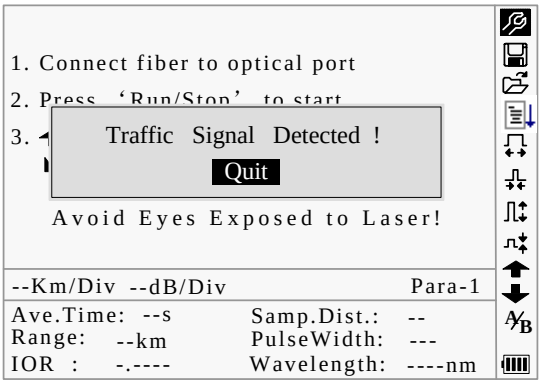


- Testing through splitter, splitter and fiber end identifiable



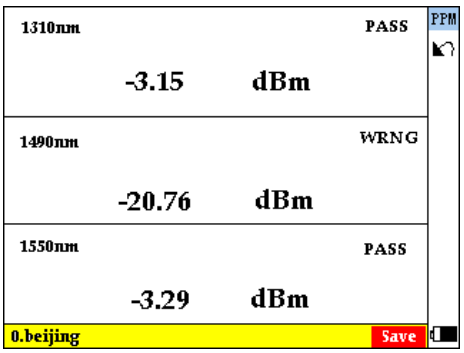
Live Optical Signal Check

When OTDR tests with 1310/1490/1550nm wavelength, the live signals transmitting in the tested fiber may not only affect OTDR measurements but also damage the equipments connected to the network (SDH/WDM/PON) and OTDR receiver. palmOTDR series avoids the problem by starting in-service communication check before testing with message warning and auto termination functions to effectively protect test instruments and communications equipments.



Built-in PON Power Meter

The integration of PON Power Meter into such a small unit of palmOTDR makes FTTx certification and troubleshooting an exciting experience and efficient work. The PON Power Meter module can perform in-



service testing of all PON signals (1310/1490/1550nm) on any spot of the network featuring pass-through design, burst mode and Pass/Warning/Fail assessment function, which can greatly help you evaluate PON signals transmission quality.

Optional Stabilized Laser Source

Stabilized Laser Source shares palmOTDR optical port and work on the same working wavelength of palmOTDR.

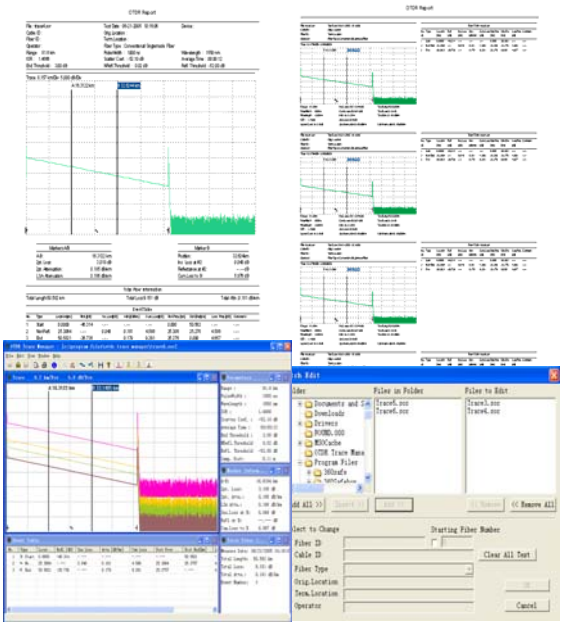
Optional Optical Power Meter

- No warm-up
- Absolute power value and power loss measurement
- High accuracy, zero shift
- Power monitoring, high-low limit setting
- Reference setting

OTDR TraceManager Software

TraceManager software can display, analyze and edit trace files, generate and print comprehensive test and analysis reports in various forms.

- Trace viewing, events analysis
- Multi traces comparison
- Batch editing and flexible printing
- Bidirectional testing (Optional)
- CSV/ASCII report formats



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General Specifications

Model [1]	Wavelength (±20nm)	Dynamic Range[2]	Event DeadZone(m)[3]	Attenuation DeadZone(m)[3]
palmOTDR-M20AE	850/1300	21/24dB	1.8	8
palmOTDR-S20AE	1310/1550	28/26dB	1.8	8/10
palmOTDR-S20BE	1310/1550	32/32dB	1.8	8/10
palmOTDR-S20C/N	1310/1550	38/37dB	2.5	14
palmOTDR-S20D/N	1310/1550	45/43dB	2.5	14
palmOTDR-S20C/P	1310/1490/1550	38/37/37dB	2.5	14
palmOTDR-S20C/X	1310/1550/1625	38/37/37dB	1.5	10
palmOTDR-S20C/E	1310/1550/1650	38/37/37dB	1.5	10
palmOTDR-P11C *(w. PPM module)*	1625	37dB	1.5	10
palmOTDR-P13C *(w. PPM module)*	1650	37dB	1.5	10
palmOTDR-P31C *(w. PPM module)*	1310/1550/1625	38/37/37dB	1.5	10
palmOTDR-P33C *(w. PPM module)*	1310/1550/1650	38/37/37dB	1.5	10
Selectable Range (Km) [4]	0.1,0.3,0.5,1.3,2.5,5,10@850nm; 0.1,0.3,0.5,1.3,2.5,5,10,20,40,80@1300nm; 0.3,1.3,2.5,5,10,20,40,80,120,160,240@others			
Pulse Width [5]	12ns,30ns,100ns,275ns,1μs@850nm; 12ns,30ns,100ns,275ns,1μs,2.5μs@1300nm; 5ns,10ns,12ns,30ns,100ns,275ns,300ns,1μs,2.5μs,10μs,20μs@others			
Averaging Time	Quick, 15s, 30s, 1min, 2min, 3min			
Distance Measure Accuracy	±(1m + 5×10^{-5}×distance + sampling space)			
Attenuation Detect Accuracy	±0.05 dB/ dB			
Reflection Detect Accuracy	±4 dB			
Data Storage	1000 records			
Connectivity	USB/RS-232			
Connector	FC (Interchangeable SC, ST)			
Power Supply	NiMH Battery / AC Adapter			
Battery Life	8 hrs continuous operation, 20 hrs standby (on one charge); recharging time < 4 hrs			
Operating Temperature	0℃ ~ 50℃			
Storage Temperature	-20℃ ~ 70℃			
Relative Humidity	0~95% (non-condensing)			
Weight	1kg (2.2 lbs)			
Dimensions (H×W×T)	220×110×70mm (8.7×4.3×2.7 inch)			

Functional Module Specifications

Visible Fault Locator Module[6]	
Wavelength (±20nm)	650nm
Output Power (dBm)	≥-3
Max Measurement Range	5 Km
Stabilized Laser Source Module[7]	
Wavelength (±20nm)	Same as OTDR working wavelength[8]
Output Power (dBm)	≥-7

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Optical Power Meter Module[9]			
Calibrated Wavelength (nm)	850,1300,1310,1490,1550,1625		
Power Range (dBm)	-70 ~ +6 (-60 ~ +6 @ 850nm)		
Detector Type	InGaAs		
Display Resolution	0.01dB		
Accuracy	± 5% ± 0.01nW(±0.5dB@850nm)		
MOD Identification	1K, 2K Hz		
PON Power Meter Module[10]			
Calibrated Wavelength	1310nm	1490nm	1550nm
Measurement Range (dBm)	-40 ~ +8 (Burst mode: -30 ~ +8)	-40 ~ +8	-40 ~ +20
Spectral Passband (nm)	1310±40	1490±10	1550±10
Power Uncertainty (dB)	≤ 0.5		
Display Resolution (dB)	0.01		
Insertion Loss (dB)	≤ 1.5		
Threshold	60 user-definable threshold sets		
Data Storage	1200 records		

*** Specifications subject to change without notice**

Notes:

(1) Specifications describe the instrument's warranted performance, measured with typical PC-type connectors. Uncertainties due to the refractive index of fiber are not considered.
(2) The dynamic range is measured at maximum pulse width within averaging time of 3 minutes.
(3) Conditions for dead zone measurement: Reflection event is at 0.6Km, reflection intensity is less than -45dB, event dead zone is measured with pulse width of 10ns (type A with 12ns); attenuation dead zone is measured with pulse width of 30ns.
(4) Among the selectable ranges 160 and 240km are only for type B, C & D; 120Km is only for type A.
(5) Among the pulse widths 5ns, 10ns, 300ns, 10μs and 20μs are only available for type B, C & D; 12ns and 275ns are only for type A.
(6) Visible fault locator module is standard on S20BE, S20C/N and S20D/N; optional on M20AE, S20AE, S20C/P, S20C/X, S20C/E, P11C and P13C.
(7) Stabilized laser source module is optional on all models.
(8) Stabilized laser source shares palmOTDR optical port and work on the same working wavelength of palmOTDR.
(9) Optical power meter module is optional on M20AE, S20AE, S20BE, S20C/N, S20D/N, S20C/P, S20C/X and S20C/E.
(10) PON power meter module is standard on P11C, P13C, P31C and P33C.

Ordering Information

Standard Package Includes:

Instrument, FC/PC connector, NiMH battery, TraceManager software CD, Data cable (USB/RS-232), AC adaptor, Soft carrying case, Warranty card, CE certificate, Certificate of calibration, Quick reference guide.

Options:

1. *palmOTDR-XXX-V* Visible Fault Locator module for palmOTDR
2. *palmOTDR-XXX-P* Optical Power Meter module for palmOTDR
3. *palmOTDR-XXX-S* Stabilized Laser Source module for palmOTDR

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