

SPEEDWOLF

Optical Time Domain Reflectometer (OTDR)

SP-OTDR32F-T4



Shenzhen SPEEDWOLF Technology Co., Ltd.

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Overview

SP-OTDR32F-T4 series Optical Time Domain Reflectometer (OTDR) is an intelligent meter of a new generation for the detection of fiber communications systems. With the popularization of optical network construction in cities and countrysides, the measurement of optical network becomes short and disperse; SP-OTDR32F-T4 is specially designed for that kind of application. It's economic, having outstanding performance.

SP-OTDR32F-T4 is manufactured with patience and carefulness, following the national standards to combine the rich experience and modern technology, subject to stringent mechanical, electronic and optical testing and quality assurance; in the other way, the new design makes SP-OTDR32F-T4 more smart and compact and multi-purpose.

Whether you want to detect link layer in the construction and installation of optical network or proceed efficient maintenance and trouble shooting, SP-OTDR32F-T4 can be your best assistant.

Product Features

- Integrated design, smart and rugged
- IP65 protection level, outdoor enhanced
- 7-inch anti-reflection LCD screen
- PON online test module (1625nm) is optional
- Support multi-language display and input

Applications

- FTTX test with PON networks
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing

Technical Parameters

Dimension	253×168×73.6mm 1.5kg (battery included)
Display	7 inch touch screen TFT-LCD with LED backlight
Interface	1×RJ45 port, 3×USB port (USB 2.0, Type A USB×2, Type B USB×1)
Power Supply	10V(dc), 100V(ac) to 240V(ac), 50~60Hz
Battery	7.4V(dc)/10Ah lithium battery (with air traffic certification) Operating time: 12 hours, Telcordia GR-196-CORE Charging time: <4 hours (power off)
Power Saving	Backlight off: Disable/1 to 99 minutes Auto shutdown: Disable/1 to 99 minutes
Data Storage	Internal memory: 4GB (about 40,000 groups of curves)
Language	User selectable (English, Simplified Chinese, traditional Chinese, French, Korean, Russian, Spanish and Portuguese-contact us for availability of others)
Environmental Conditions	Operating temperature and humidity: -10℃~+50℃, ≤95% (non-condensation) Storage temperature and humidity: -20℃~+75℃, ≤95% (non-condensation) Proof: IP65 (IEC60529)
Accessories	Standard: Main unit, power adapter, Lithium battery, FC adapter, USB cord, User guide, CD disk, carrying case Optional: SC/ST/LC adapter, Bare fiber adapter

Test parameter

Pulse Width	Single mode: 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1μs, 2μs, 5μs, 10μs, 20μs
Testing Distance	Single mode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km
Sampling Resolution	Minimum 5cm
Sampling Point	Maximum 128,000 points
Linearity	≤0.05dB/dB
scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance×3×10 ⁻⁵ +sampling resolution) (excluding IOR uncertainty)
Reflectance Accuracy	Single mode: ±2dB, multi-mode: ±4dB
IOR Setting	1.4000~1.7000, 0.0001 step
Units	Km, miles, feet
OTDR Trace Format	Telcordia universal, SOR, issue 2 (SR-4731) OTDR: User selectable automatic or manual set-up
Testing Modes	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe

Fiber Event Analysis	-Reflective and non-reflective events: 0.01 to 1.99dB (0.01dB steps) -Reflective: 0.01 to 32dB (0.01dB steps) -Fiber end/break: 3 to 20dB (1dB steps)
Other Functions	Real time sweep: 1Hz Averaging modes: Timed (1 to 3600 sec.) Live Fiber detect: Verifies presence communication light in optical fiber Trace overlay and comparison

VFL Module (Visual Fault Locator, as standard function)

Wavelength ($\pm 20\text{nm}$)	650nm
Power	10mw, CLASS III B
Range	12km
Connector	FC/UPC
Launching Mode	CW/2Hz

PM Module (Power Meter, as optional function)

Wavelength Range ($\pm 20\text{nm}$)	800~1700nm
Calibrated Wavelength	850/1300/1310/1490/1550/1625/1650nm
Test Range	Type A: -65~+5dBm (standard); Type B: -40~+23dBm (optional)
Resolution	0.01dB
Accuracy	$\pm 0.35\text{dB} \pm 1\text{nW}$
Modulation Identification	270/1k/2kHz, Pinput $\geq -40\text{dBm}$
Connector	FC/UPC

LS Module (Laser Source, as optional function)

Working Wavelength ($\pm 20\text{nm}$)	1310/1550/1625nm
Output Power	Adjustable -25~0dBm
Accuracy	$\pm 0.5\text{dB}$
Connector	FC/UPC

FM Module (Fiber Microscope, as optional function)

Magnification	400X
Resolution	1.0 μm
View of Field	0.40 \times 0.31mm
Storage/working Condition	-18 $^{\circ}\text{C}$ ~35 $^{\circ}\text{C}$
Dimension	235 \times 95 \times 30mm
Sensor	1/3 inch 2 million of pixel
Weight	150g
USB	1.1/2.0
Adapter	SC-PC-F (For SC/PC adapter) FC-PC-F (For FC/PC adapter) LC-PC-F (For LC/PC adapter) 2.5PC-M (For 2.5mm connector, SC/PC, FC/PC, ST/PC)

Order Information

Type	Testing Wavelength (MM: $\pm 20\text{nm}$, SM: $\pm 10\text{nm}$)	Dynamic Range (dB)	Event Dead-zone (m)	Attenuation Dead-zone (m)
SP-OTDR32F-T4-21	1310/1550	32/30	1	8/8
SP-OTDR32F-T4-22	1310/1550	37/35	1	8/8
SP-OTDR32F-T4-23	1310/1550	42/40	0.8	8/8
SP-OTDR32F-T4-24	1310/1550	45/42	0.8	8/8
SP-OTDR32F-T4-31	1310/1490/1550	30/28/28	1.5	8/8/8
SP-OTDR32F-T4-32	1310/1550/1625	30/28/28	1.5	8/8/8
SP-OTDR32F-T4-33	1310/1490/1550	37/36/36	0.8	8/8/8
SP-OTDR32F-T4-34	1310/1550/1625	37/36/36	0.8	8/8/8

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by SPEEDWOLF before they become applicable to any particular order or contract. In accordance with the SPEEDWOLF policy of continuous improvement specifications may change without notice.

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