



OTDR Basic for the measurement of single-mode (SM) 1310-1550 nm fiber optic links

The OTDR Basic (Optical Time Domain Reflectometer) is a professional measuring instrument for detecting and characterizing losses and defects in fiber optic networks. The equipment emits a pulse of light with a specific wavelength, which is transmitted through the fiber to be measured. The light travels along the fiber, reflecting and attenuating, resulting in the different events. Finally, the time and intensity of the returning light is measured, calculating the type, value and location of the events of a fiber optic link. This is an essential piece of equipment for evaluating and guaranteeing the quality of fiber optic networks.

The OTDR Basic offers multiple measurement functions in a single device, Expert and Automatic OTDR, Optical Power Meter (OPM), Stabilised Laser Source (SLS), Optical Loss Test (OLT), Visual Fault Locator (VFL) and RJ45 network cable tester. The Automatic OTDR and the Expert OTDR perform comprehensive detection and analysis of link events. The Automatic OTDR has a pre-set and optimized parameter configuration, facilitating measurement tasks. It is thus suitable for novice installers or those with little experience with this type of professional equipment. In addition, it is especially useful when the total length of the fiber link is unknown, as the Automatic OTDR mode calculates this distance, just by entering the wavelength and the test time. The Expert OTDR, in contrast, allows manual configuration of

parameters for more in-depth studies and analysis. In both modes, the data can be displayed in different ways: the fiber trace, the event table and the Link Scheme interface; different ways to simplify the reading, evaluation and analysis of the collected data.

Furthermore, the device includes OTDR Trace Software, which allows the different measurements to be studied from a computer, via a micro SD card or by connecting the OTDR with a USB cable. This makes it easier and more convenient to examine and interpret the fiber trace.

This measuring device is compact and handy, has a 5-inch touchscreen that provides great comfort in use and a battery life of up to 8 hours in continuous operation.

The OTDR Basic is supplied with Li-Ion battery (included in the device), USB to USB Type-C data cable, AC power adapter, RJ45 cable tracker and sequencer, microSD card with OTDR Trace Software and carrying case with strap.

To ensure a correct measurement it is imperative to use a launch fiber, both at the beginning and at the end of the fiber network to be measured. In this way, the losses of the first and the last connector of the link can be known.

Ref.	598001
Logical ref.	OTDRBASIC
EAN13	8424450283714

Packaging info

Box	1 pcs.
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Physical data

Net weight	700.00 g
Gross volume	1.60 dm ³
Gross weight	700.00 g
Width	190.00 mm
Height	130.00 mm
Depth	65.00 mm
Main product weight	700.00 g

Highlights

- Portable format for everyday use: compact and handy design, suitable for easy carrying at all times
- Convenience of use: intuitive, fast-response interface with 5-inch touchscreen for simplified usability
- Measurement storage: Allows the user to store and organize collected traces
- High battery life: up to 8 hours in continuous operation and up to 20 hours on standby. In addition, the automatic shutdown option avoids consumption when not in use
- Several languages available: English, Spanish, French, Italian, Portuguese...
- Suitable for measuring 1310 and 1550 nm single-mode (SM) fiber networks
- Short range with 1.5m event dead zone and 8m attenuation dead zone
- 24dB dynamic range
- Pass/fail evaluation according to a threshold, for this test the parameters are set manually
- RJ45 data cable test

Technical specifications

Specifications	
Display	5.0" (12.7cm) Color LCD (Touch capacitive)
Connectors	1 x OTDR SM SC/PC (exchangeable with FC, ST, LC) 1 x VFL 2.5mm Ferrule UPP (universal push pull) 1 x OPM 2.5mm Ferrule UPP (universal push pull) 1 x USB Type C for Power Supply and access to internal storage 1 x RJ45 LAN1 for cable lenght and type (T568A/B) 2 x RJ45 LAN2 for cable identification
Flashlight	Yes
Memory	8GB SD card (more than 200K test results)
Battery	Li-Ion 3.7V; 6.6Ah; 24.42Wh
A/C Adapter	8 hours continuous operating. Operating during charging possible. Input: 100-240V~ 50/60Hz, 0.4A Output: 5V, 2000mA
Operating Temperature	-10°C ~ 50°C
Storage Temperature	-40°C ~ 70°C
Humidity	≤ 95% (non-condensing)
Size (W x H x D)	190 x 130 x 65mm
Net Weight	732g
Supported languages	English, Spanish, Deutsch, French, Italian, Portuguese, Polish, Arabic, Chinese, Russian, Indonesian
Remote control by PC	No
OTDR (Optical Time Domain Reflectometer)	
Wavelengths	1310 and 1550nm ± 20nm
Dynamic Range	24dB
EDZ (Event Dead Zone)	1.5m
ADZ (Attenuation Dead Zone)	8m
Measurement accuracy	Distance ± (1m + 10 ⁻⁵ x distance + sampling step) Attenuation ± 0,05dB/dB Reflection ± 3dB
Distance measuring	Automatic or by two markers
Units	Kilometers, Kfeet and miles
Selectable measuring ranges	0.5, 1, 2, 4, 8, 16, 32, 64, 100 km
Selectable pulse widths	3ns , 5ns, 10ns, 20ns, 30ns, 50ns, 80ns, 160ns, 320ns, 500ns, 800ns, 1000ns, 2000ns, 3000ns, 5000ns, 8000ns, 10000ns, 20000ns
Averaging time	5s, 15s, 30s, 60s, 120s, 180s
Measurement methods	Automatic, manual, 2-points
VFL (Visual Fault Locator)	
Wavelength	650 nm

Output power	< 1mW
Frequencies	CW, 1 Hz, 2Hz
OPM (Optical Power Meter)	
Calibrated wavelengths	850, 1300, 1310, 1490, 1550, 1625, 1650 nm
Dynamic range	-50 dBm +26 dBm
Resolution	0.01 dB
Accuracy	± 5%
Tone detection	CW, 270 Hz, 330Hz, 1kHz, 2kHz
Detector	InGaAs
SLS (Stabilized Light Source)	
Calibrated wavelengths	1310, 1550 nm
Tone detection	CW, 270 Hz, 330Hz, 1kHz, 2kHz