

Ascentac

Optical Time Domain Reflectometer

Ascentac OTDR700



Intelligent and High Integrated Instrument with SmartView Design

Ascentac OTDR700 Series, Optical Time Domain Reflectometer, is an advanced instrument for troubleshooting, measuring and recording status of fiber-optic networks. The high resolution and narrow event dead-zone enable fiber-optic status in installation, operation and maintenance to be analyzed comprehensively and precisely. The feature of power meter, light source, loss meter and VFL makes it a truly multipurpose and ideal instrument for fiber-optic-related measurement.

Ascentac OTDR700 Series utilizes one-touch automatic measurement which can avoid test setup errors and smart view in the linear way which simplifies results interpretation. The distance of each event, total loss, total return loss and Pass/Fail result will be directly indicated. These test results can also be stored and converted to PC for copy and saving as the record for future reference.

Ascentac OTDR700 Series offers on-site technicians the most outstanding performance and incredible experience.

Benefits

- 5 fiber-optic test functions in one unit (OTDR, Power meter, Light source, Loss meter, VFL)
- Event dead zone less than 1.5m & Attenuation dead zone less than 4.5m
- Up to 256000 sampling points
- Multiple-wavelength for single-mode
- One-button operation
- Automatic Pass/Fail analysis

Application

- Construction, deployment and maintenance of FTTH
- CATV network testing
- Metro network testing

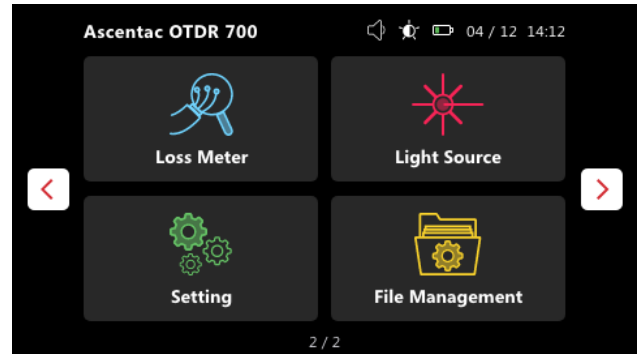
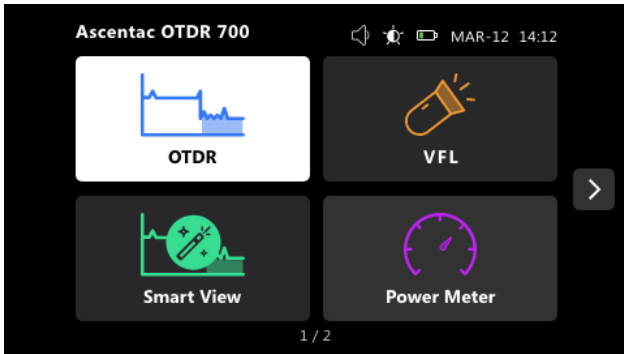
Description

- ① Power status indicator
- ② Laser-on indicator
- ③ One-touch automatic measurement
Intuitive interface for easy use
- ④ Shatter-resistant sleeve & IPx3 (Protected against spraying water)
- ⑤ Outdoor-enhanced 4.3 inch TFT color touch LCD with backlight function
(Comfortable to read display for any abominable environments)
- ⑥ A stand for hands-free
- ⑦ Dust cap for protecting optical interface
 - a. Visual fault locator (Option)
 - b. Optical power meter (Option)
 - c. Optical time domain reflectometer / Optical light source (Option)
 - d. Power
 - e. USB-A
 - f. Ethernet



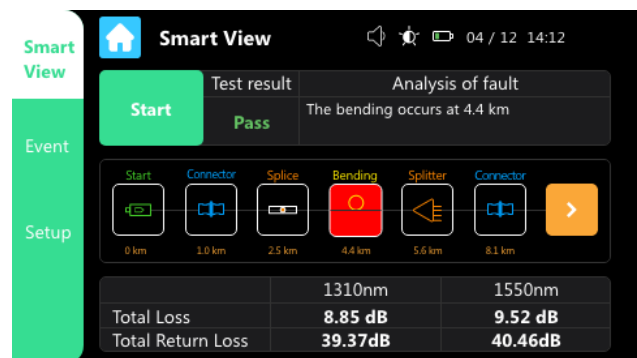
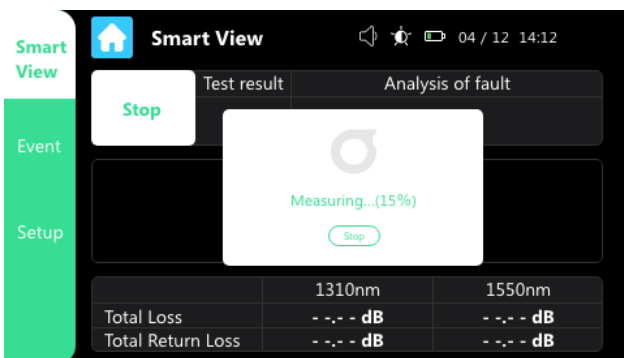
Multifunction

The OTDR 700 Series is a highly integrated instrument. It combines all essential fiber testers (OTDR, Power meter, Light source, Loss meter, VFL) in one set. The minimum investment makes the maximum value.



SmartView Design

The OTDR 700 Series not only has the traditional OTDR trace but also makes measured results displayed in icons. Technicians can assess the status of the fiber-optic cable in the easiest and quickest way.



What is an OTDR?

OTDR, short for optical time domain reflectometer, is designed for testing the performance of newly installed fiber-optic links and detecting problems that may exist.

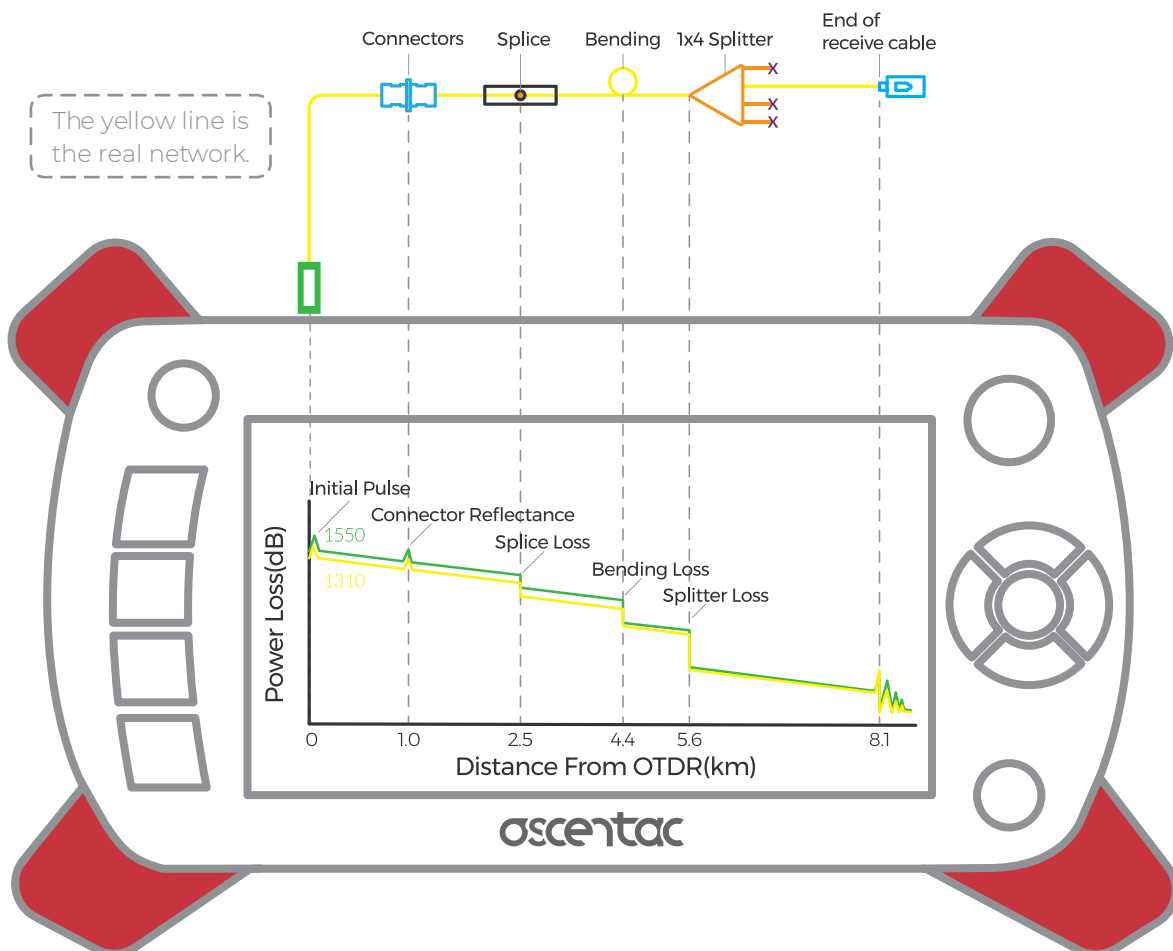
It can calculate the fiber length & attenuation and locate faults. It is an excellent instrument for troubleshooting and fault locating.

How does an OTDR work?

OTDR will send an optical pulse down the fiber and produce a "trace" (a graph of optical power in dB versus the length of the fiber) based on the return signal to present the measurement of the fiber.

The trace can be stored for reference. Comparisons can be made between the original trace and later trace if problems arise.

OTDR Trace Based on the Real Network



Specification

OTDR Specification						
Wavelength (nm)	1310 ± 20	1550 ± 20	1625 ± 5	1310 ± 20 & 1550 ± 20	1310 ± 20 & 1625 ± 5	1550 ± 20 & 1625 ± 5
Dynamic Range (dB)	33	31	31	30/28	30/28	28/28
Pulse Width (ns)	5 to 20000					
Event Dead Zone (m)	< 1.5					
Attenuation Dead Zone (m)	< 4.5					
Testing Distance (km)	0.1 to 260					
Sampling Points (Points)	256000					
Distance Accuracy (m)	± (1 + 0.003 % x distance + sampling resolution)					
Optical Connector	SC/PC					
OPM Specification(Option)						
Power Range (dBm)	+6 to -65					
Accuracy (dB)	±5% or ≤ ±0.25dB (@ -10dBm or -20dBm)					
Resolution (dB)	0.01					
Wavelength Range (nm)	1310, 1490, 1550, 1625					
Optical Connector	SC/PC					
OLS Specification(Option)						
Central Wavelength (nm)	1310±20 1550±20 1625±5	1310±20 & 1550±20 1310±20 & 1625±5 1550±20 & 1625±5				
Output Power (dBm)	-4	-7				
Stability (dB)	± 0.5					
Optical Connector	SC/PC					
VFL Specification(Option)						
Wavelength (nm)	650±10 (Visible)					
Output Power (mW)	1					
Modulation Output	CW(Continuous Wavelength), 1Hz, 2Hz					
Optical Connector	Universal 2.5mm					
OLM Specification (Option)						
Working Wavelength (nm)	1310±20 1550±20 1625±5	1310±20 & 1550±20 1310±20 & 1625±5 1550±20 & 1625±5				
	Based on the selected central wavelength of OLS					
Measurement Range (dB)	0 to 65					
Uncertainty (dB)	≤ ± 5 % or ≤ ± 0.25 dB (@-10dBm or -20dBm)					
Display						
4.3 inch ultra-bright TFT color touch LCD with backlight function						
Power Supply						
DC Input Voltage (V/Amp)	5.0 / 4.0					
Battery Life (hours)(with backlight)	> 6					
Environment						
Working Temperature (°C)	0 to +50					
Storage Temperature (°C)	-20 to +60					
Relative Humidity (%)	5 to 95, Non-condensing					
Dimensions and Weight						
Size (H x W x D) (mm)	124 x 225 x 70.5					
Weight (g) (batteries included)	850					
Others						
Interface	1. Type-A USB 2. Mini USB 3. 10/100Mbps Ethernet RJ-45					
Ingress Protection	IPx3					
Standard Accessories						
Main unit, Resistive touch pen, Adaptor cleaning sticks (2.5mm) 10pcs, Fiber cleaner, Carrying bag, Shoulder strap, Built-in lithium battery, Power adapter, Power cord, One-year warranty						

Ordering Information

OTDR 01-007XX + A0-0022X

OTDR Wavelength & Dynamic Range

- 01 : 1310nm, 33dB
- 02 : 1550nm, 31dB
- 03 : 1625nm, 31dB
- 21 : 1310/1550nm, 30/28dBm
- 22 : 1310/1625nm, 30/28dBm
- 23 : 1550/1625nm, 28/28dBm

Power Cord with Plug

- 2 : Power cord with US plug
- 3 : Power cord with EU plug
- 4 : Power cord with UK plug
- 5 : Power cord with AU plug

Note : 1. OTDR with built-in SC/PC adaptor.

2. For option of Optical Light Source(OLS), the selection of wavelengths has to be same with OTDR's.

Option

Visual Function Locator (VFL)

A1-01104	1mW, built-in universal 2.5mm tip sleeve
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Optical Light Source (OLS) (Please select wavelength which is same with OTDR's)

A1-02111	Central Wavelength 1310nm, Output Power -4dBm, Optical Connector SC/PC
A1-02211	Central Wavelength 1550nm, Output Power -4dBm, Optical Connector SC/PC
A1-02311	Central Wavelength 1625nm, Output Power -4dBm, Optical Connector SC/PC
A1-02431	Central Wavelength 1310nm & 1550nm, Output Power -7dBm, Optical Connector SC/PC
A1-02531	Central Wavelength 1310nm & 1625nm, Output Power -7dBm, Optical Connector SC/PC
A1-02631	Central Wavelength 1550nm & 1625nm, Output Power -7dBm, Optical Connector SC/PC

Optical Power Meter (OPM)

A1-03011	Power Range +6dBm to -65dBm, Optical Connector SC/PC
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Optical Loss Meter (OLM)

A1-04200	Measurement Range 0 to 65dB
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Battery

A0-00501	4.2V 13360 mAh Lithium
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Adaptor & Power Cord

A0-00221	AC Adaptor
A0-00222	Power Cord with US Plug
A0-00223	Power Cord with EU Plug
A0-00224	Power Cord with UK Plug
A0-00225	Power Cord with AU Plug

Fiber Optic Cable

A0-00601	Single Mode 9/125--SC/UPC to SC/UPC--2m
A0-00602	Single Mode 9/125--SC/UPC to LC/UPC--2m
A0-00603	Single Mode 9/125--SC/UPC to ST/UPC--2m
A0-00604	Single Mode 9/125--SC/APC to SC/UPC--2m
A0-00605	Single Mode 9/125--SC/APC to LC/UPC--2m
A0-00606	Single Mode 9/125--SC/APC to SC/APC--2m
A0-00607	Single Mode 9/125--FC/UPC to FC/UPC--2m

Adapter Cleaning Sticks - 100 pcs/box

02-0A110	1.25mm without ESD (Electro-Static Discharge)
02-0A120	2.5mm without ESD (Electro-Static Discharge)
02-0B110	1.25mm with ESD (Electro-Static Discharge)
02-0B120	2.5mm with ESD (Electro-Static Discharge)

Fiber Cleaner - 400 wipes/pc

02-00411	Reusable Fiber Cleaner--1 slot
02-00412	Reusable Fiber Cleaner--2 slots
02-00421	Cartridge--1 slot
02-00422	Cartridge--2 slots

Example : OTDR 01-00701

Option: A0-00501, A0-00221, A0-00222, A0-00601



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