

# MOT-500 Mini OTDR series

## Description:

MOT-500 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 installed in cities and countryside's, the measurement of optical network becomes short and disperses; MOT-500 is specially designed for that kind of application. It's economic, having outstanding performance.

MOT-500 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 MOT-500 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 troubleshooting, MOT-500 can be your best assistant.



MOT-500

## Features:

- Integrated design, smart and rugged
- 7-inch anti-reflection LCD screen
- 1 m height anti-fall
- Fiber link map test
- 1 m ultra short deadzone
- Through splitter up to 1x64 test
- 400x fiber microscope
- Remote control function
- Support multi-language display and input

## Application:

- FTTX test with PON networks
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing
- Lab and Factory testing
- Live fiber troubleshooting

## VFL (visual fault locator)

The VFL, available as a standard module in MOT-500 series OTDR, offers built-in 650 nm visual fault location on a FC/UPC connector.

## PM (power meter)

MOT-500 series OTDR comes with optional built-in power meter that let technicians easily verify the presence of a signal.

### LS (laser source)

MOT-500 series OTDR comes with optional built-in laser source through OTDR1 Port that let technicians easily verify the total loss of the local network with a power meter.

### FM (fiber microscope)

The optional fiber inspection probe facilitates the inspection before the connection. MOT-500 series OTDR offers this capability through a USB port connection, which allows quick and easy inspection of connector end faces for contamination and also enables it capture and store the image.

### FTTH test within PON networks

MOT-500 series OTDR's models T45F and 31-49-55/62, are dedicated to the testing of PON network maintenance and troubleshooting without service disruption.

MOT-500 series OTDR could easily test through 1x64 PLC splitter in PON test (Model: MOT-500-T45F).

### Fiber Microscope

Microscope is optional for MOT-500 series OTDR. 400x amplification and variety of accessories ensure perfect terminal condition before test.

### iOLA

Fiber link monitor functionality.

### Specification

Dimension	246×173×70 mm 1.55 kg (battery included)
Display	7 inch multi-touch color LCD screen
Interface	USB: 2x USB2, 1x USB3 Network: RJ45 port, 10/100M Audio: 3.5 mm headphone jack
Buzzer	14 mm voltage buzzer
Power Supply	12 V / 2 A DC, 100 to 300 V AC, 50-60 Hz
Battery	7.4 V DC, 5.2 Ah rechargeable lithium battery Standby >15 hrs, testing > 8 hrs
Data Storage	Internal memory: 10 000 testing results
Language	English
Environmental Conditions	Operating temperature and humidity: -10°C to +50°C Storage temperature and humidity: -20°C to +60°C ≤90% (non-condensation)
Accessories	Standard: main unit, power adapter, Lithium battery, FC adapter, user guide, CD disk, carrying case, micro SD card

### Technical parameter

Type	Testing Wavelength (nm)	Dynamic Range (dB)	Dead-zone Event/Attenuation (m)
MOT-500-T45F	1310/1550/1625	45/43/43	0.5/3.0
MOT-500-T43F	1310/1550/1625	40/38/36	0.5/3.0
MOT-500-MD21	850/1300	19/21	1.5/8
	1310/1550	35/33	1.5/8
MOT-500-D45	1310/1550	45/43	2/14

### Test parameter

Pulse Width	SM: 3 ns, 5 ns, 10 ns, 20 ns, 50 ns, 100 ns, 200 ns, 500 ns, 1 μs, 2 μs, 5 μs, 10 μs, 20 μs
Test range	100 m, 500 m, 2 km, 10 km, 20 km, 40 km, 80 km, 120 km, 160 km, 240 km
Sampling Resolution	Minimum 0.1 m
Loss resolution	0.001 dB
Distance Uncertainty	± (0.8 m+0.005% x testing distance + resolution)
OPM	PM: -65 to+5 dBm PMH: -50 to +26 dBm 850/1300/1310/1490/1550/1625 nm
OLS	1310/1550/1625 nm CW, 270 Hz, 1 kHz, 2 kHz
VFL	<1 mW, 630-670 nm, Class II laser product

### Ordering Code:

**MOT-500 - XXX - LS - PM(H) - FM - VFL - YYY**

<b>T45F</b>	PON testing
<b>T43F</b>	PON testing
<b>D45</b>	Long haul testing
<b>MD21</b>	Basic MM+SM tests

<b>YYY - connector type</b>	
<b>UPC</b>	FC/PC
<b>NPC<sup>1</sup></b>	FC/APC

### Options:

**LS** laser source  
**PM** power meter standard  
**PMH** power meter high power  
**FM** fiber microscope  
**VFL** visual fault locator

### On request:

SC/PC, SC/APC, LC/PC, ST/PC adaptors

Note: 1) FC/APC – 2.05 type:  
Plug key width 1.97–2.02 mm  
Receptacle keyway width 2.03–2.08 mm