

# MT-6500 series



**New Generation** Multifunction OTDR combined with CCTV tester ,  
OPM,VFL and VLS



OTDR



Max 150KM



Optical signal detection



Laser Source



OPM



VFL



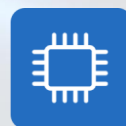
Optical loss test



WIFI



4K H.265



4 Core CPU



LPDDR4



UTP cable test



Digital cable tracer



PoE power



Network Tool

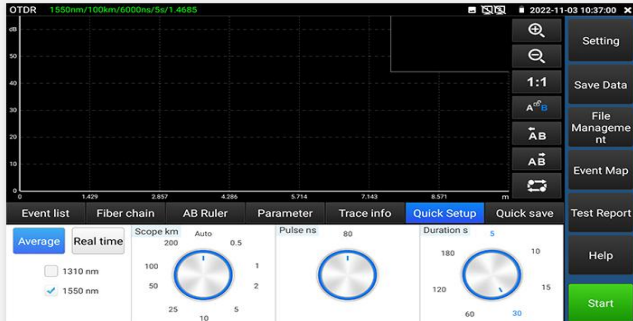


RJ45 TDR length

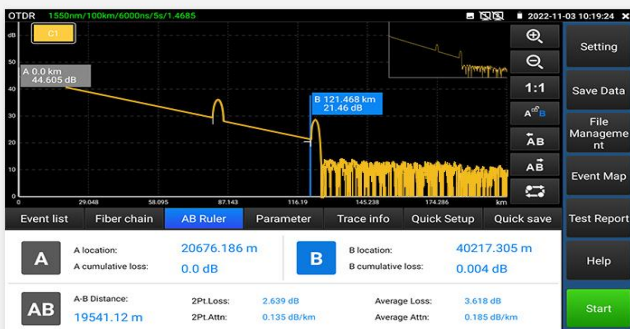
# Auto OTDR test

Expert OTDR

**A** Auto OTDR by default



AB ruler: includes loss, distance and attenuation of AB section



- ◆ Multi-functional OTDR and measuring instrument
- ◆ 5.4 inch IPS touch screen, 1920\*1152 resolution
- ◆ 4K H.265 & H.264 IP camera tester
- ◆ 4 core CPU, support online update and install applications
- ◆ Internal storage and external TF card
- ◆ Report saved as EXCEL, PDF, or screenshots format etc
- ◆ Support snap shot screen
- ◆ Support remote control
- ◆ 8MP TVI CVI AHD camera testing \* **Optional**
- ◆ HDMI input/VGA input \* **Optional**
- ◆ DC12V2A/12V 3A / 5V 2A power output
- ◆ Gigabit network port, support Ping and scan IP address etc
- ◆ RJ45 TDR cable's short and open test
- ◆ Improvement cable tester, UTP cable etc continuity test
- ◆ PoE power output and PoE voltage and power measurement
- ◆ Stable laser source, optical power meter and visual fault locator.

## Application

Multi-function MT-6500 OTDR series is an essential tool for fiber length, network and camera testing. OTDR displays the power of the returned signal related to distance. The information can be used to confirm the transmission quality of a fiber optic link. It is widely used in the maintenance, construction and monitoring of cable line. It can measure the optical fiber length, transmission attenuation of optical fiber, attenuation of splice, and failure location, etc. as well, built in camera tester for maintenance and installation of IP analog, HD coaxial cameras as well as other security equipment. If taking the all in one OTDR, it will make working conditions safer and increasing productivity.

- CCTV system installation and maintenance
- Network cabling project installation and maintenance
- Dome camera, TVI CVI AHD **4K** H.265 IP camera testing
- Video transmission channel testing
- PTZ controller
- Fiber length testing and Event Map etc

## Features

### OTDR

- **5.4 inch** IPS touch screen, 1920\*1152 resolutions
- 1310/1550/1610 wavelength **optional**, 26/28/30/32/34dB Dynamic range **optional**, **max test range 150KM\***
- Stable laser source, support CW/270/330/1000/2000Hz
- Test fiber's length, loss, attenuation parameters and event map, locate connection point/ fusion point
- Automatic analysis of various linkers/fusion points, easy analyze of various events
- Save and view the testing curves, support zoom and move curves, view details.
- Support saving curves number  $\geq 30000$  pcs
- Support create testing report, including curve trajectory graphs, parameter settings, fiber event information, and fiber link information
- Report saved as EXCEL, PDF, or screenshots format etc
- Loss test, detect the optical or optical components loss value

### Camera testing

- 5.4 inch IPS touch screen, **1920\*1152 resolution**
- 4K H.265 video display via mainstream
- TVI 4.0/ CVI 5.0/ AHD 4.0 camera test, UTC control & call OSD menu **(Only for Model 6510) \***
- AXIS, Hikvision, dahua camera testing, enter ONVIF app, input username and password to test
- DC12V/3A power output, support temporarily supply power for the camera
- **48V PoE power output**
- Chrome browser, test and set Axis camera
- Support CVI 5.0 Audio testing **(Only for model MT-6510) \***
- Rapid video, just by one key to detect all network cameras and auto display
- Built in Wi-Fi, display image from the wireless camera, create WIFI hotspot
- 4K HDMI input Optional **(Only for model MT-6510) \***
- 2K 60F VGA input Optional **(Only for model MT-6510) \***

### Cable test:

- Improvement cable tester, UTP cable, telephone cable etc sequence and continuity test, save testing report. Support detect the near-end, mid-end and far-end fault point of the RJ45 cable plug
  - **Upgraded RJ45 cable TDR test**, support cable's open and short testing, **max test 600m**
- Cable tracer, search BNC cable, network cable and telephone cable from the mess cables

### Other functions

- New Power management file, Output power and input power management interface, to quickly check POE48V, 24V2A, 12V3A power and voltage
- POE & power information, DC12V& PoE power and voltage output /input measurement
- Tester Play: Tester, android version mobile phone and PC display at the same time
- Advanced Network Tool, Scan IP, Route tracking, Socket debugging, ping packet test, DHCP, PPPOE, LLDP
- 7.4V 5200mA Li-ion Battery, 2.5 hours charging, normal working time lasts 11 hours

## Specifications

OTDR Technical Specifications								
Wavelength (nm) <b>Optional *</b>	1310/1550				1610			
Dynamic range(dB) <sup>2</sup> <b>Optional*</b>	28/26	30/28	32/30	34/34	28	30	32	34
Pulse width (ns)	5,10,20,30,50,80,160,300,500,800,1000,2000,4000,6000,10000,20000							
Testing range	≤150 Km							
Event blind zone (m) <sup>3</sup>	≤2m							
Attenuation blind zone (m) <sup>3</sup>	≤10m							
Linearity (dB/dB)	±0.05 dB/ dB							
Loss threshold (dB)	0.05							
Loss resolution ratio (dB)	0.01							
Minimum distance resolution	0.05							
Sampling point(K)	32-128							
Distance uncertainty (m)	±(1 m + 5×10 <sup>-5</sup> × distance + sampling interval)							
Distance scope (km)	0.5,1,2,5,10,25,50,100,200							
Typical real-time refreshing duration	1s							
File format	SOR standard format/PDF/EXCEL							
Measurement duration	5sec, 10sec, 15sec, 30sec, 1min, 2min, and 3min are selectable							
Storage	FLASH (EMMC)8G + TF card							
Interface type	SC-PC							

**Remarks:**

1. The technical specification describes the ensured performance of the instrument when using typical PC model connector to measure, without considering the uncertainty caused by optical fiber refractivity.
2. Dynamic range is the data measured under the condition of the maximum pulse width and 3 minutes of average time. Dynamic range is the data measured under the condition of 200km/20000ns/3min.
3. Measuring conditions of blind zone: reflection event is within 5Km, reflection strength is 45dB. Measured by the minimum pulse width.

**Note:“\*”sign means functions are customizable ! The data above is only for reference and any change of them will not be informed in advance. For more detailed technical inquiries, please feel free to contact us.**

Specification		
Size & Display	5.4 inch IPS touch screen ,1920*1152 resolution	
Network Port	One 1000M LAN port, 10/100/1000M auto adapt	
WIFI	Built in 2.4G WIFI, speeds150M, display wireless camera image	
H.265 mainstream test	H.265 & H .264 IP, <b>4K video</b> display via mainstream	
IP camera test	Support 500 brands IP camera test	
IP discovery	Auto-scan the whole network segment IP address	
HD coaxial camera test	TVI 4.0/ CVI 5.0/ AHD 4.0 camera test, UTC control & call OSD menu <b>(Only for model MT-6510) *</b>	
CVBS camera test	1 channel BNC input & 1 channel BNC looped output, NTSC/PAL (Auto adapt) <b>(Only for model MT-6510) *</b>	
Zoom Image	4x zoom, enlarge image, screen snapshot, save, view and record and playback	
RJ45 cable TDR test	measurement range 600M.	
HDMI input	HDMI input <b>(Only for model MT-6510) *</b>	
VGA input	Support 1280x1024/960/800/768/720P 60FPS, 1152x870P 60FPS, 1024x768P 60FPS, 800x600P 60FPS, 640x480P 60FPS resolution <b>(Only for model MT-6510) *</b>	
Power output	48V PoE/ 24V2A/ 12V 3A / 5V 2A power output	
UTP cable test	Test UTP cable connection status and display on the screen. Read the number on the screen. detect the near-end, mid-end and far-end fault point of RJ45 cable connector, can test shield cable	
RJ45 TDR cable test	Support cable's open and short testing, max test 600m	
Data monitor	Captures and analyzes the command data from controlling device, also can send hexadecimal	
Network test	Trace route, Link monitor, DHCP server, port flashing, Ping test	
Digital Cable tracer	Search BNC cable, network cable and telephone cable from the mess cables. Cable tracer and UTP cable test app in the same interface, also can search shield cable	
Electroscope	Voltage range	AC12-1000V
	Frequency	50/60Hz
	Alarm type	Sounds and light double alarms
	Level	CAT.III 1000V / CAT.IV 600V;CE
PoE Voltage test	Measurement POE switch or PSE power supply voltage and cable connection status	
Visual fault locator	10mW visual fault locator with 650nm wavelength, emit red laser sources to test multi-mode and single mode fiber's bending and breakage, test range 8KM	
Optical power meter	Wavelength:1625,1550nm,1490nm,1310nm,1300nm,850nm, measurement range ,-70 ~ +10 dBm, for optical power testing and Fiber link loss relative measurement	
Power		
External power supply	DC 12V ( 2A )	
Battery	Built-in 7.4V Li-ion battery, 5200mAh	
Rechargeable	After charging 2.5 hours, normal working time 11 hours	
Parameter		
Operation setting	OSD menu, select your desired language: English, Portuguese, Korean, Russian, Italian, French, Polish, Spanish, Japanese, Turkish, Deutsch, Serbian, Czech, Vietnamese etc	
Auto off	5-30 (mins)	
Working environment		
Working Temperature	-10°C----+50°C	
Working Humidity	30%-90%	
Dimension/Weight	264mm x 182mm x 43mm / 1Kg	

## Comparison Table

Feature/Model	MT-6500	MT-6510	MT-6800	MT-6810
Analog camera test	x	√	x	√
IP camera testing	4K	4K	8K	8K
8MP AHD/CVI/TVI camera test	x	√	x	√
Stable laser sources	√	√	√	√
Optical power meter/ Visual fault locator	√	√	√	√
Cable tracer/ Advanced network tool	√	√	√	√
VGA input	x	√	x	√
HDMI input	x	√	x	√
HDMI out	x	x	√	√
Interface type	SC-PC	SC-PC	FC/SC-PC	FC/SC-PC
LAN port	Only one LAN port	Only one LAN port	Dual LAN port	Dual LAN port
RJ45 TDR cable test	Only support cable's open and short testing , <b>Max up to 600m</b>	Only support cable's open and short testing, Max up to <b>600m</b>	Support cable 's open and shorts attenuation /reflectivity/impedance and skew, <b>Max 180M</b>	Support cable 's opens and shorts attenuation /reflectivity/impedance and skew, Max 180M

## Packing list

- 1) Tester
- 2) Cable tracer
- 3) Adaptor DC12V 2A/ 8GB TF card
- 4) Li-ion Battery (7.4V 5200mAh)
- 5) Tool bag / DC12V Power cable/BNC cable/ RS485 cable/RS485 port/ Audio cable/ Safety cord
- 6) SC connector, Fiber test head
- 7) BNC alligator clamp
- 8) RJ45 to BNC connector
- 9) OTDR test report