

Copper time Domain Reflectometer

(Model No: mTDR-070)

Introduction

NanoTronix Copper time Domain Reflectometer (Model No.: mTDR-070) is highly accurate portable measuring instrument based on TDR (Time Domain Reflectometry) technology that analyzes the physical characteristics of cables consisting of at least two metallic conductors. It can analyze or test a variety of cable conditions and faults from a remote distance such as complete open & short, partial open & short, loading coils, loose connection, broken lines and faulty impedance etc..

NanoTronix Copper time Domain Reflectometer can effectively be utilized in a variety of the cable environments including telephone lines, high-speed communication lines, CATV lines, power distribution lines, UTP cables (CAT 3, 4, 5, 5e & 6) etc..

The instrument displays the measurement/test results in graphic and tabular forms through a large-sized graphic LCD screen with 320x240 pixel resolution.

By providing separate keys for some frequently used functions and incorporating intuitive easy-to-use menu for other functions, users can handle it without much difficulty.

With large internal memory and a serial communication port, users can store up to 100 waveforms in the instrument and download them to computers for analyzing with the specially developed PC software (NanoWave™).

With high accuracy as well as user-friendly features, NanoTronix Copper time Domain Reflectometer is an excellent instrument for cable installation, maintenance & repair crew.



Features

- ◆ Suitable for use on Coaxial, Telephone, CATV, CCTV, Power cable & UTP cable etc.
- ◆ Maximum range: 3.2m~20,000m (10.4ft~65,000ft) for Coaxial cables
 - * Maximum testable cable length will vary with pulse width and cable type
- ◆ Two active cursors with individual control
- ◆ Changeable zero point
- ◆ Ease of use : single key functions
- ◆ Non-volatile memory for storing measurement data up to 100 waveform
- ◆ Built-in library of 77 cables for fast & easy selection of VOP
- ◆ Usable battery time display
- ◆ Waveform zoom capabilities
- ◆ Waveform trace and diagnosis
- ◆ Automatic event search
- ◆ Low power consumption
- ◆ Efficient power management
- ◆ Windows S/W : NanoWave™
- ◆ Rugged and waterproof packing
- ◆ Optional spare battery double operating time
- ◆ CE & FCC certified



Technology at the speed of light

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Performance	Measurement range	3.2 m ~ 20,000 m (10.4 ft ~ 65,000 ft) for Coaxial cables <i>*Maximum testable cable length will vary with pulse width and cable type</i>
	Maximum display resolution	10 cm (Variable up to 50 m)
	Accuracy	±0.1% of reading ±0.1 m for Coaxial cables <i>*Accuracy will vary with VOP of cable being tested</i>
	Test mode	L1, L1&M, L1-M, M
	Pulse width	5, 15, 45, 100, 200, 500, 1,000, 2,000, 5,000, 10,000 (ns)
	Interface	Display
Maximum storage capacity		100 waveforms
Internal memory		256 Kbytes
Communication port		RS-232C compatible (1 start bit, 8 data bits, 1 stop bit and no parity and 38,400 baud rate)
Input bandwidth		300 MHz
Effective sampling rate		1 GS/s
Gain		0 to 66 dB or better, maximum sensitivity 1mV (full scale)
Screen update rate		Maximum 3 times per second
VOP (PVF)		Variable from 30.0 to 99.9% (in 0.1% step) V : 90 to 300 m/μs V/2 : 45 to 150 m/μs
Operation	Battery	12 V Nickel metal hydride battery pack 4,000mAh
	Adaptor	DC 15 V, 1 A
	Input protection	250 V AC 60 Hz
	Connector	BNC female
	Operating time	6 hours
	Recharge time	4 hours
Dimension	Width	247 mm(9.7")
	Depth	127 mm(5")
	Height	267 mm(10.5")
	Net weight	3.3 kg (7.2 lbs)
Environment	Operating temperature	-15°C(+5°F)~ +55°C(131°F)
	Storage temperature	-20°C(-4°F) ~ +70°C(158°F)
	Humidity	< 95%

* Except where otherwise stated, this specification applies at an ambient temperature of 20°C(68°F).

* NanoTronix Co., Ltd. reserves the right to change the specification or design without prior notice.

Applications

NanoTronix Copper time Domain Reflectometer (Model No.: mTDR-070) has been using in many industrial sites such as Telephone company, ISP, CATV company, HFC network maintenance company, LAN installer or maintenance company, Power plant company, Chemical company, Ship-builder, Military communication unit, Large-sized factory and Subway station wherever any kinds of metallic cables are installed and need to be maintained.



- ◆ Coaxial cables network maintenance
- ◆ CATV and CCTV network maintenance
- ◆ Electric power cable maintenance
- ◆ Telephony network maintenance
- ◆ Security cable maintenance
- ◆ LAN network maintenance

Standard Accessories

- ◆ 2 m long alligator clip (pin type)
- ◆ 30 cm ling alligator clip (pin type)
- ◆ RS-232C serial communication cable
- ◆ DC 15 V / 1 A adaptor
- ◆ BNC to F connector
- ◆ BNC to BNC connector
- ◆ Soft carrying bag
- ◆ Shoulder strap
- ◆ NanoWave™ installation CD
- ◆ User's manual

Optional Accessory

- ◆ Optional spare battery
- ◆ Male BNC to female RJ45 adaptor
- ◆ 12 V Cigarette lighter charger
- ◆ 8 m /75 Ω coaxial cable

Warranty

- ◆ 1 year from the date of purchase