

## TC601E Ethernet and E1 Tester

### Key Benefits

- Complete solution for activating, verifying & fault-diagnosing Ethernet service from 10Mbit/s to 1Gbit/s quickly and easily
- 5" (800x480) color LCD touchscreen
- 1000Base-X optical port x 1, 10/100/1000Base-T electric port x 1
- 75Ω unbalanced BNC × 2, 120Ω balanced RJ48 × 1
- Convenient and intuitive user interface
- Integrates multiple software tools for field measurement, ensuring high cost-performance
- Professional PDF and CSV data report generation
- Rechargeable lithium battery powers continuous use for over 6 hours (8 hours idle)

### Main Functions

#### Ethernet Features:

- Supports one 10/100/1000Base-T copper interface and one 1000Base-X optical interface
- RFC 2544: Throughput, Latency, Packet Delay Variation, Frame Loss, and Back-to-Back (symmetrical and asymmetric results)
- Ethernet BERT: layer1 to layer4
- Y.1564: Service config and performance measurement
- Stream traffic generation and analysis up to 10 streams
- Smart Loopback for layer1 to layer4
- VLAN (Q-in-Q) support
- MPLS support
- Packet Delay Variation measurement
- Cable Diagnostics and Optical Power testing
- IPv6 support
- Ping, Trace Route
- CSV and PDF result files

#### E1 Features:

- 2.048 Mbit/s transmit and receive
- ITU-T G.821, G.826, and M.2100
- LOS, LOF, and AIS warning measurement
- 75Ω unbalanced and 120Ω balanced support
- Error injection / alarm generation



### Product Overview

New from Deviser Instruments, the TC601E is a handheld Ethernet and E1 service tester that supports testing for speeds up to 1Gbps. It's the next generation of telecommunication systems analysis, serving the growing need for high-speed metropolitan access at unmatched cost performance.

### Major Applications

The TC601E Ethernet and E1 Tester excels at all Ethernet measurement applications, including performance evaluation; metro Ethernet installation, activation, & maintenance; point-to-point Ethernet joining-up service planning; real-time online fault diagnosis; and more.

## Specifications

Optical Port			
SFP port x 1, supports 1GigE			
Available Wavelengths	850nm, 1310nm, 1550nm (see below)		
	1000Base-SX	1000Base-LX	1000Base-ZX
Wavelength (nm)	850	1310	1550
Tx Level (dBm)	-9 ~ -3	-9 ~ -3	0 ~ +5
Rx Level Sensitivity (dBm)	-20	-22	-22
Transmission Distance	550m	10km	80km
Transmission Bit Rate (Gbit/s)	1.25		
Receiving Bit Rate (Gbit/s)	1.25		
Tx Working Wavelength Range (nm)	830 ~ 860	1270 ~ 1360	1540 ~ 1570
Test Accuracy			
Frequency (ppm)	±4.6		
Optical Power (dB)	±2		
Jitter Compliance	IEEE802.3		
Ethernet Type	IEEE802.3		
Connector	LC		
Transceiver Type	SFP		
Electrical Port			
Single port: 10/100/1000 Base-T Full duplex			
Auto/manually detecting straight-through/cross cable			
	10Base-T	100Base-TX	1000Base-T
Tx Bit Rate	10Mbit/s	100Mbit/s	1Gbit/s
Tx Accuracy (ppm)	±4.6	±4.6	±4.6
Rx Bit Rate	10Mbit/s	100Mbit/s	1Gbit/s
Rx Test Accuracy (ppm)	±4.6	±4.6	±4.6
Duplex Mode	Full duplex	Full duplex	Full duplex
Jitter Compliance	IEEE802.3	IEEE802.3	IEEE802.3
Connector	RJ-45	RJ-45	RJ-45
Max. Distance (m)	100	100	100
E1 Port			
75 Ω unbalanced BNC × 2; 120 Ω balanced RJ48 × 1			
Line Rate and Code	2.048 Mbps, HDB3 and AMI		
Compliance	ITU-T G.703		
General			
Size (HxWxD)	179mm x 145mm x 56mm (7.0" x 5.7" x 2.2")		
Display	5" 800x480 color LCD touchscreen		
Weight (with battery)	0.8kg (1.8lbs)		
Working Temperature	-10°C ~ 50°C		
Storage Temperature	-20°C ~ 70°C		
Relative Humidity	0% to 95% (non-condensation)		
External Port	USB, Ethernet port		
Working Time	~6 hrs		
Charging Time	5h from fully discharged to fully charged		
Language	English, Chinese		