

# TC602RE

## Ethernet Backhaul Service Tester

### Key Benefits

- Complete solution for activating, verifying & fault-diagnosing Ethernet service from 10Mbit/s to 1Gbit/s quickly and easily
- 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 3.5 hours (4 hours idle)



### Product Overview

New from Deviser Instruments, the TC602RE is a handheld Ethernet backhaul service tester that supports testing for speeds up to 1Gbps. The TC602RE adds a suite of E1, SyncE, and IEEE 1588v2 testing functions for even wider utility. It's the next generation of telecommunication systems analysis, serving the growing need for high-speed metropolitan access at unmatched cost performance.

### Applications

- Business Services Installation
- Wireless backhaul service verification
- Metro Ethernet installation, activation, & maintenance
- Point-to-point Service Activation
- Real-time online fault diagnosis

### Key Features

#### Ethernet Features:

- Supports two 10/100/1000Base-T electrical interface and two 1000Base-X optical interface
- Synchronous Ethernet (SyncE) and IEEE 1588v2 (Precision Time Protocol) measurement
- RFC 2544: Throughput, Latency, Packet Delay Variation, Frame Loss, and Back-to-Back (symmetrical and asymmetric results)
- Ethernet BERT: Layer 1 to Layer 4
- Y.1564: Service configuration & performance measurement
- Stream traffic generation and analysis up to 10 streams
- Smart Loopback for Layer 1 to Layer 4
- 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

## Specifications

Optical Port			
SFP port x2			
Available Wavelength	850nm, 1310nm & 1550nm (see below)		
	1000Base-SX	100Base-TX	1000Base-T
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			
Two ports: 10/100/1000 Base-T Full duplex			
Auto/manually detecting straight-through/cross cable			
	10Base-T	10Base-TX	100Base-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	~3.5 hrs		
Charging Time	5h from fully discharged to fully charged		
Language	English, Chinese		

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