

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
- 100/1000Base-X optical port x2, 10/100/1000Base-T electrical port x2
- 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 3.5 hours (4 hours idle)



Main Functions

Ethernet Features:

- Supports two 10/100/1000Base-T electrical interface and two 100/1000Base-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

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.

Major Applications

The TC602RE Ethernet Backhaul 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; wireless backhaul service verification; and more.

Specifications

Optical Port			
SFP port x2			
Available Wavelength	850nm, 1310nm & 1550nm (see below)		
	1000Base-SX	100Base-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			
Two ports: 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			
Dimensions (LxWxH)	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	5 hrs for full charge		
Language	English, Chinese		

©2014 Deviser Instruments Incorporated. 780 Montague Expressway, Suite 701, San Jose, CA 95131. All rights reserved. Specifications subject to change without notice. All product and company names are trademarks of their respective corporations. Deviser Instruments manufacturing facilities are ISO 9001 certified. Do not reproduce, redistribute, or repost without written permission from Deviser Instruments. TC602RE 170907