TC700 Series
Gigabit Ethernet Test Module

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Description

TC700 Gigabit Ethernet Test Module is a latest model for telecommunication test launched by Deviser. It is designed for Ethernet layout and integration test, which conforms to Ethernet test standards and provides comprehensive Ethernet test functions. TC701 gigabit Ethernet test module is a highly efficient test instrument for the service provider to meet SLA of the users.

Key Features

–RFC2544 Test includes

- Throughput
- Back-to-Back
- Frame Latency
- Frame Loss Rate
- Support standardized and customized RFC2544 frame size

–Y.1564 Test

- Support network configuration test and performance test;
- Identify the key SLA standard such as packet jitter, QoS test result and so on;
- Improve the test speed drastically.

–EtherBERT Test

- Support Ethernet BERT test
- Support warning and error generation

–Intelligent loopback

- Support L1/L2/L3/L4 layer loopback test.

–BitGen

- Support up to 10 data streams, every stream configures different parameters (MAC address, VLAN label, MPLS, IPV4, IPV6, UDP/TCP source destination's port, payload and bandwidth).

–Libpcap

- Enrich the filter and libpcap functions

–Flow Analysis

- Support error analysis
- Multiple warning indicator (LOS,Link Error)
- Statistics functions (such as multicast, unicast, pause frame)
- Ethernet frame analysis
- Flow analysis on the basis of different filter conditions.

Specification

Optical Interface				
2 SFP interface, support 100M and GigE				
Available wavelength	850nm,1310nm and 1550nm			
	100Base-LX	1000Base-SX	1000Base-LX	1000Base-ZX
Wavelength (nm)	1310	850	1310	1550
Tx Level (dBm)	-15 ~ -8	-9 ~ -3	-9 ~ -3	0 ~ +5
Rx Level Sensitivity (dBm)	-28	-20	-22	-22
Transmission Distance	15 Km	550 m	10 Km	80 Km
Transmission Bit Rate (Gbit/s)	0.125	1.25	1.25	1.25
Receiving Bit Rate (Gbit/s)	0.125	1.25	1.25	1.25
Tx Working Wavelength Range (nm)	1261 ~ 1360	830 ~ 860	1270 ~ 1360	1540 ~ 1570
Measurement Accuracy				
Frequency (ppm)	±4.6	±4.6	±4.6	±4.6
Optical Power (dB)	±2	±2	±2	±2
Jitter Compliance	IEEE802.3	IEEE802.3	IEEE802.3	IEEE802.3
Ethernet Category	IEEE802.3	IEEE802.3	IEEE802.3	IEEE802.3
Connector	LC	LC	LC	LC
Transceiver Category	SFP	SFP	SFP	SFP

Electric Interface			
2 ports: 10/100/1000 Bas-T full duplexing			
Automatic or manual detecting through/crossover cable			
	10Base-T	100Base-T	1000Base-T
Tx Bit Rate	10Mbit/s	125Mbit/s	1Gbit/s
Tx Accuracy (ppm)	±4.6	±4.6	±4.6
Rx Bit Rate	10Mbit/s	125Mbit/s	1Gbit/s
Rx Measure Accuracy (ppm)	±4.6	±4.6	±4.6
Duplex Mode	Half duplex and full duplex	Half duplex and 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

General Specification	
Dimension (H x W x D)	252 x 184 x 76 (mm)
Weight (with battery)	0.35kg
Operating Temperature	0℃~50℃
Store Temperature	-40℃~70℃
Relative Humidity	0% ~ 95% (non-condensation)
Working Time	Over 4 hours
Charging Time	5 hours from full discharge to full charge
Language	Chinese, English
Test Function	
Y. 1564	Network configuration and service test on the basis of ITU-T Y.156sam standard, obtain the bidirectional test result by remote loopback and double test equipment mode
RFC2544	Throughput, Back-to-Back, lost rate and latency on the basis of RFC2544 Frame size: defined by RFC, 1-7 sizes configured by the user
Stream generation and detection	Generate bit stream and detect Ethernet and IP stream, clarify and count according to different conditions
Multi Stream	Generate and monitor upmost 10 data stream on Ethernet and IP network. Kinds of configured data stream analysis, set packet size, MAC source address/destination address, VLAN ID, VLAN priority, IP source address/destination address, UDP source/destination port and payload
Passing Mode	Section the data stream between service provider's network and user's equipment
BER Test	Supports the BER test of up to 4 layers
Pattern (BERT)	PRBS 2E7-1, PRBS 2E9-1, PRBS 2E11-1, PRBS 2E15-1, PRBS 2E20-1, PRBS 2E23-1, PRBS 2E29-1, PRBS 2E31-1, and a pattern defined by the user. Supports reversal pattern
Error Test (BERT)	Bit error, mismatch 0, mismatch 1
Frame Statistics and Analysis	overrun/maximum, minimum, undersize, FCS, symbol, alignment, conflict
Warning Monitor	LOS, link disconnection
VLAN Support	At most two layers VLAN data stream are generated by VLAN ID or VLAN priority on any stackable VLAN layers
Service Discontinued Time (SDT)	Includes statistic data, such as the longest discontinued time, shortest discontinued time, last discontinued time, average discontinued time, counting, total discontinued time
IPV6	Supports BERT, RFC2544, data stream generating and detecting, PING, Traceroute
Others	
Optical Power Measurement	Supports optical power test, result displayed by dBm
Remote/intelligent Loopback	Supports equipment to find and set loopback mode automatically
Double Test Equipment	Supports bidirectional RFC2544 and Y.1564 test
Save and Load Configuration	Supports USB device and flash memory to save/load test configuration
IP Tool	PING, TRACEROUTE, LIBPCAP
Event Record	Supports test result records including date, time, detailed information
Report Generation	Generate and output test report on the equipment
Remote Control	Supports browser visit/control