PacketExpert 10G™ - Tablet-Inspired
(Next-Generation 10G Handheld Ethernet/IP Tester)

Overview
GL offers Touchscreen Handheld PacketExpert 10G™ Ethernet/IP Tester (PXG101), with a Tablet PC mounted on PacketExpert 10G™, making it highly suitable for field testing.

The device provides comprehensive testing of 10 Gbps Wirespeed Ethernet/IP networks. It has two 10Gbps Optical ports, and two 1000 Mbps Electrical/Optical ports capable of BERT, Smart Loopback, BERT/Loopback, RFC 2544, Multi Stream Traffic Generator and Analyzer, and ExpertTCP™ test functionalities.

Each GigE port provides independent Ethernet/VLAN/MPLS/IP/UDP testing at wirespeed with applications such as BERT, Smart Loopback, BERT/Loopback, RFC 2544, and MTGA. BERT is implemented for all layers. RFC 2544 is applicable for Layers 2, 2.5, and 3, and Loopback is applicable for Layers 2, 3, and 4.

PacketExpert 10G™ supports the following important functionalities – Wire speed BERT, Smart Loopback, RFC 2544 Testing, Multi Stream Traffic Generator & Analyzer, PacketBroker, Record Playback, ExpertSAM, and ExpertTCP™.

With the capability to generate/receive traffic with stacked VLAN (Q-in-Q) and stacked MPLS, PacketExpert 10G™ finds use in testing a wide range of networks – from testing individual links/switches, testing local Ethernet/IP networks (LAN), end to end testing of Wide Area Networks (WAN), testing Core/MPLS networks, and much more.

GL also offers PacketExpert 10G™ standalone device (PXG101) without Tablet, which can be setup in lab and plugged to any PC via USB 2.0.

GL’s other Ethernet/IP tester variants includes PacketExpert™ - in 1Gbps versions. These are portable quad port models. There is also the HD-PacketExpert™ in 12 and 24 GigE port versions, for testing GigE switches, routers & network conditions and WAN Emulators - IPLinkSim™ and IPNetSim™ for testing GigE switches, routers and network conditions.

For detailed information on PacketExpert 10G™, visit http://www.gl.com/packetexpert-10g/optical-ethernet-tester.html
Wire Speed BER Testing
PacketExpert 10G™ supports Wire speed BERT up to 10Gbps simultaneously over Framed Ethernet (Layer2), Stacked VLAN (Q-in-Q), Stacked MPLS (Layer 2.5), IP and UDP. It can generate and receive various BER Traffic Patterns, including various PRBS patterns, Bit Error Insertion, and FCS Error Insertion. Wire speed BERT is also supported on 1000 Mbps Electrical /Optical interface.

The screen below displays the PacketExpert 10G™ GUI, running All Port BER test on Port#1 and Port#2 10G optical ports.

RFC 2544 Testing
PacketExpert 10G™ supports RFC 2544 tests up to 10Gbps. RFC 2544 tests includes Ethernet Throughput, Latency, Frame Loss, and Back-to-Back performance tests in accordance with RFC 2544 specifications. The test is setup such that the traffic can be generated and transmitted on either of the ports and the looped back traffic from the DUT is received on the opposite port validating the test parameters. RFC 2544 tests are also supported on 1000 Mbps Electrical /Optical interface.
**Report Generation**

PacketExpert 10G™ includes report generation option to create consolidated CSV and PDF file format reports for 10G Optical and 1000Mbps Electrical/Optical ports. The following sample CSV and PDF reports generated for ‘All ports BERT’ test includes Interface, BERT Statistics, Tx/Rx Statistics, Tx/Rx Configuration details for each of the Electrical and Optical ports.

**Remote Control**

PacketExpert 10G™ supports Command Line Interface (CLI) to access all functionalities such as All Port Bert, All Port Loopback, Bert/Loopback, RFC 2544 via TCL or Python clients using MAPS™ CLI Server environment.
Specifications

Interfaces:
- 2 x 1G Base-X Optical OR 1000 Base-T Electrical
- 2 x 10G Base-SR, -LR, -ER Optical only
- Single Mode or Multi Mode Fiber SFP support with LC connector

Protocols:
- RFC 2544 compliance

Bus Interface:
- None or USB 2.0

External Power Supply:
- +18 Volts, 3.0 Amps

Physical Specification:
- Length: 6.39 in. (162.2 mm)
- Width: 9.96 in. (252.9 mm)
- Height: 2.59 in (65.9 mm)
- Weight: 4.75 lbs. (2.15 kg)

Related Software
- PXG105 - Wire speed Record /Playback 10G
- PXG106 - ExpertSAM™ 10G
- PXG107 - PacketBroker 10G
- PXG108 - Multi Stream Traffic Generator and Analyzer 10G
- PXG108 - ExpertTCP™ 10G
- ETH100 - PacketCheck™
- PKV100 - PacketScan™ (Online and Offline)

Buyer’s Guide
- PXG101 - PacketExpert 10G™ Tablet

Related Hardware
- PXG100 - PacketExpert 10G™
- PXG104 - PacketExpert™ 10G Rackmount Version
- PXE100 - PacketExpert™ 1G
- PXE104 - PacketExpert™ - SA (4 ports)
- PXE112 - PacketExpert™ - SA (12 Ports)
- PXE124 - PacketExpert™ - SA (24 Ports)