GPON Protocol Analyzer

TraceSpan™
Communications

GPON Xpert™

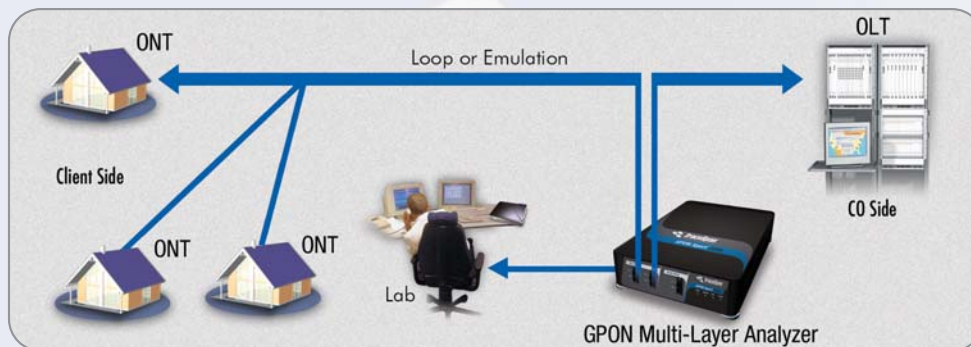*Passive Multi-Layer GPON Analyzer and OLT Emulator*

GPON Xpert™ Overview

The GPON Xpert multi-layer analyzer is a unique protocol analyzer for GPON products. GPON Xpert is a modular tool designed for R&D, laboratory and field application engineers engaged in the development, testing and deployment of GPON standard-compliant solutions. Cutting significant time from GPON development, deployment, debugging, and interoperability testing, GPON Xpert accelerates time to market and return on investment.

The innovative **GPON Xpert** analyzer verifies the interoperability of GPON products offered by different vendors, and indicates compliance of any combination of OLT and ONU/ONT modems to the GPON standard. GPON Xpert is a powerful tool for service providers (Telcos and CLECs), equipment manufacturers and technology and chipset developers.
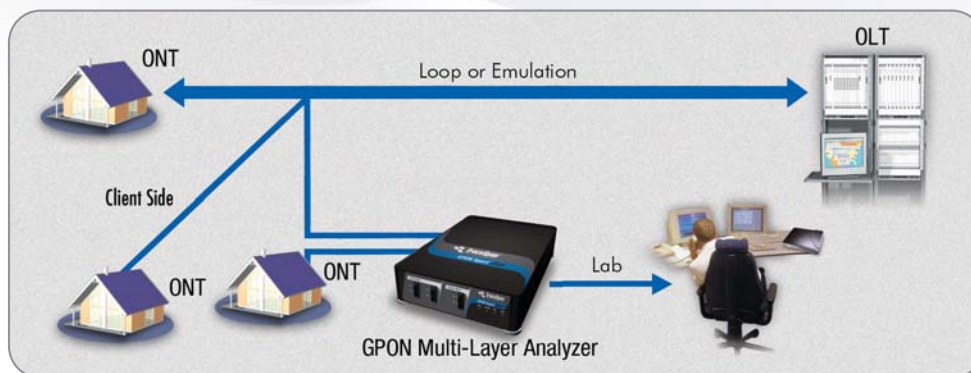
Following the overwhelming industry acceptance and tremendous success of the company's field proven systems, the DSL Xpert and VDSL Xpert analyzers, the **GPON Xpert** defines a class by itself by providing a complete and accurate analysis of GPON product performance, standard compliance and interoperability without using any GPON Protocol chipset. With its unique multi-layer probing capability, GPON Xpert provides comprehensive analysis of data in multiple forms: MAC layer, GTC Framing sub-layer, TC Adaptation sub-layer and OMCI Management. In addition, the system allows full view and analysis of the Upper Layers, including Ethernet, IP, TCP, PPP, IGMP, HTTP, and the ability to export the data for further analysis. **GPON Xpert** simultaneously presents downstream and upstream data and the connection between the data transmitted by the OLT and ONT/ONUs. A user-friendly software-based analyzer controlled by a PC, **GPON Xpert** has a feature-rich GUI that presents multi-layer information in convenient displays, graphs and tables.

As the only developer of xDSL passive protocol analyzers, TraceSpan gained worldwide recognition as an industry leader whose products are sought after and used by all major Broadband Access Providers, equipment manufacturers and chipset vendors
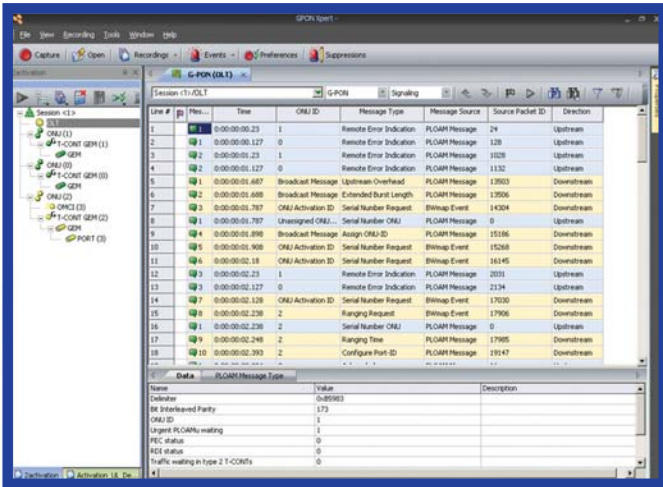
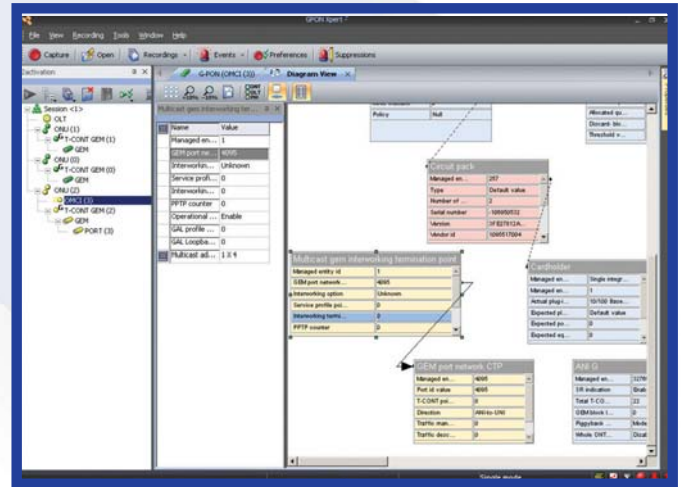# Flexible Configuration Options

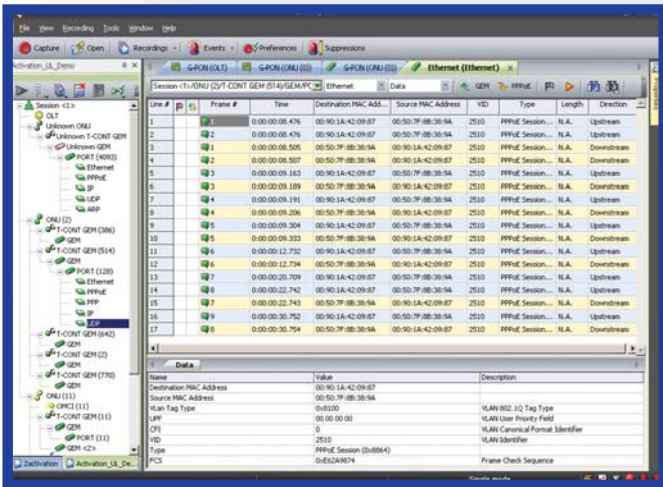*OLT Site Sampling*

ONT Site Sampling
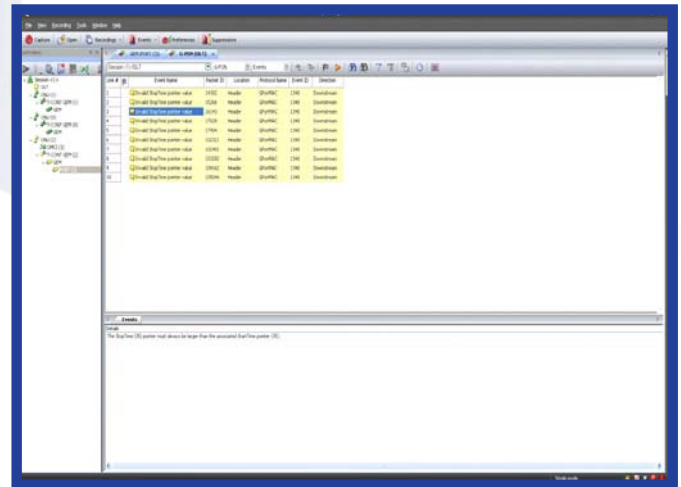
GPON Xpert™ User Friendly Analyzer

Information View
Data, Signaling and Events

OMCI Diagram View
Managed Entities, Properties, Relationship

Upper Layers View
Packets Content and Events

Events View
Warnings, Errors, and Incompatibility Issues

Advantages

- Complete testing of the GPON protocol

- Comprehensive Performance and Compliance Analyzer

- Independent Testing Tool - No GPON chipset

- Extensive Data Capturing Solution

- Multi-Layer Probing

- Unbiased Decision Making Tool for Managers

- Command Line Interface for Automatic Testing

- User-friendly GUI

- Accelerate Time to Market

- Quick Return on Investment

Features and Benefits

Features	Benefits
Verification	Provides standard-compliance verification
GPON Analysis	Offers analysis for the current GPON standard and future standard amendments
Simultaneous Data Extraction	Simultaneously displays upstream and downstream data and the link between the OLT and ONU/ONT modems.
Archive	Stores and allows retrieving of data and analysis in the form of messages, signaling and events information
Alerts	Provides warnings regarding incompleteness of measurements or incompatibility within the GPON Standards
Comprehensive Reporting	Displays the analysis results in lists, tables, and diagrams relating to performance and errors; Report Wizard automatically generates exportable HTML reports
Automatic Testing	Includes Command Line Interface (CLI), allowing integration with existing automated testing environment
Multi-layer Probing (Sniffing)	Tracks and displays events through the MAC, OMCI, and the Upper Layers, including message structure and timing
Independent Testing	Detects and verifies problems without relying on any G-PON protocol chipset
Exporting the Data	Allows users to transfer the data and the analysis results to other tools such as Excel® or Ethereal
New Software Evaluation	Identifies problems before a new software version is released into the network
New Hardware QA	Checks performance and reliability before deploying new equipment

Specifications

GPON Standards Compatibility	G.984.2 – GPON PMD G.984.3 – GPON MAC G.984.4, G.988 – GPON ONT Management and Control Interface (OMCI) BBF TR-156 BBF 247 ONU Conformance
Dimensions – Lab Version	Height: 50mm (2 in.) Width: 275mm (10.8 in.) Depth: 375mm (14.7 in.)
Dimensions - Portable Version	Height: 354mm (13.9 in.) Width: 427mm (16.8 in.) Depth: 151mm (5.9 in.)
Safety Standard	CE
Certifications	FCC part 15
Operating Environment	Temperature: 0°- 40°C (32°-104°F) Humidity: 10% to 90% non-condensing

Contact Information

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