

# NG-PON Xpert

Multi-layer Analysis for Next Generation PONs



Complete analysis of the XG-PON1, NG-PON2 and XGS-PON protocols

Full multi-layer view of TC, OMCI and upper layers

Neutral unbiased testing tool between the OLT and ONUs

Intuitive rich user interface

## Complete Real-Time Analysis of Next Generation PON

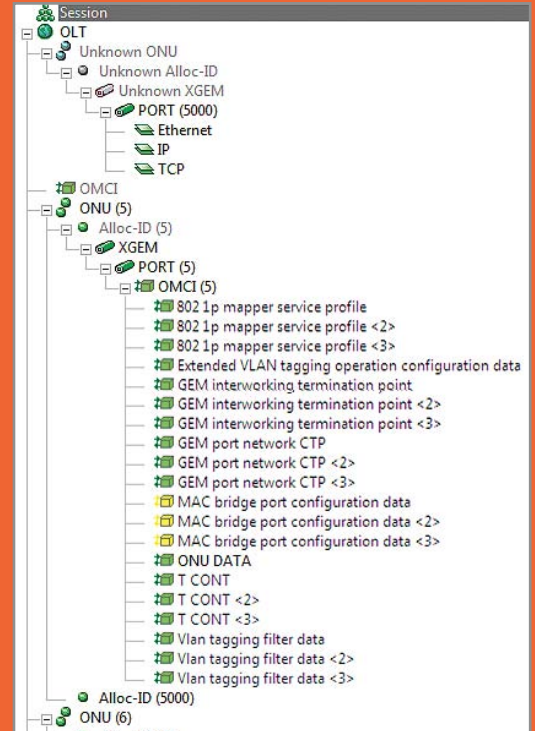
Are you ready to test and analyze next generation PON technologies?

The NG-PON Xpert multi-layer analyzer is a unique, real-time protocol analyzer for XG-PON1, NG-PON2 and XGS-PON networks and products.

Specifically designed for R&D, laboratory and field application engineers, NG-PON Xpert is a modular tool that helps operators and equipment vendors accelerate time-to-market by cutting significant time from development, deployment, debugging, troubleshooting and verification testing.

# Multi-Layer Analysis

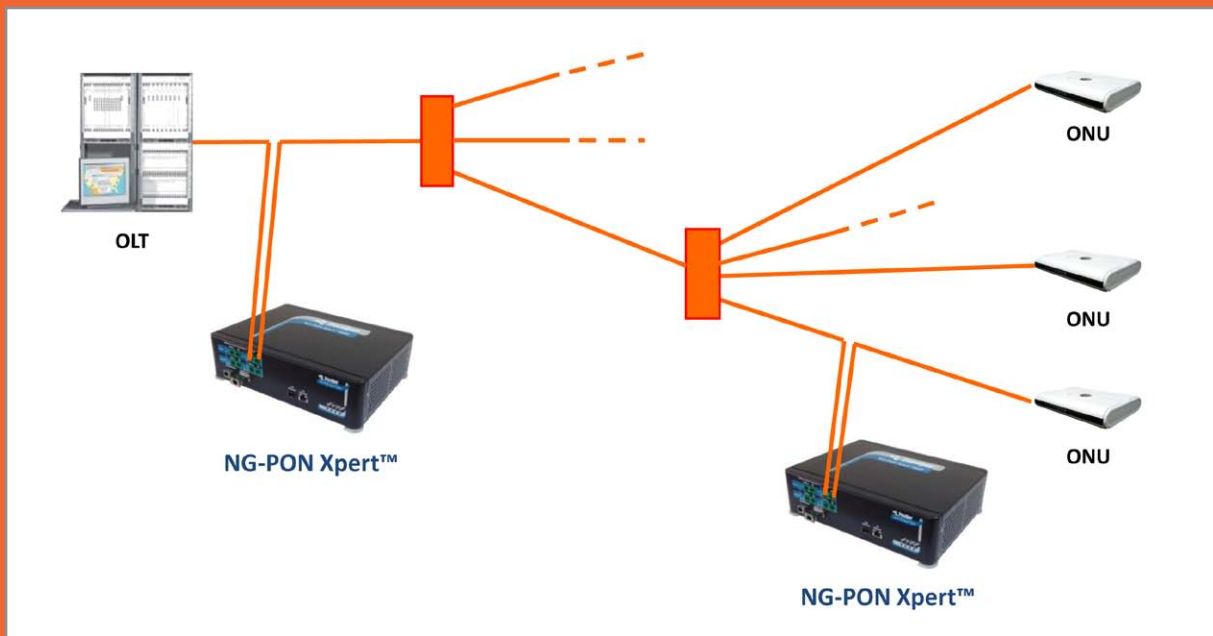
Using multi-layer probing capability, the NG-PON Xpert lays out a comprehensive picture of the protocols and traffic running through the PON. It analyzes and displays the Transmission Convergence (TC) and OMCI Management layers and provides full analysis of the Upper Layers, including Ethernet, PPP, PPPoE, IPv4, IPv6, TCP, UDP, DHCP, IGMP, HTTP and TR-069.



Front Panel

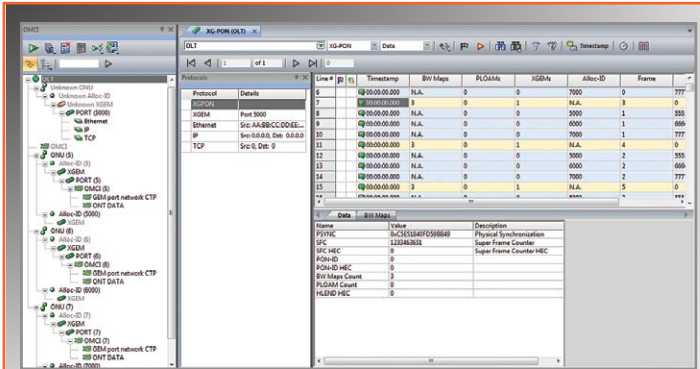
# Flexible Configuration

The NG-PON Xpert can be connected either at the OLT site or at the ONU/ONT site, enabling testing of the entire PON as well as focusing on a selected ONU/ONT.

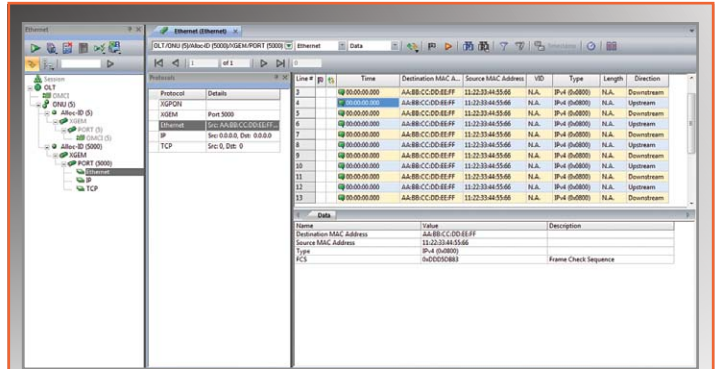


# Intuitive User-Friendly Tool

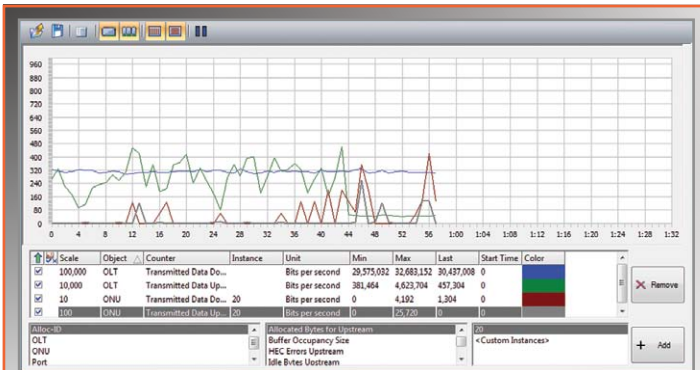
NG-PON Xpert features a rich array of intuitive displays, graphs and tables for testing and troubleshooting of the PON components. The displayed information includes network topology, events, parsed messages of downstream and upstream data, OMCI relations diagrams, VLAN routing analysis, performance monitoring tools and connection links status between the OLT and the ONUs/ONTs.



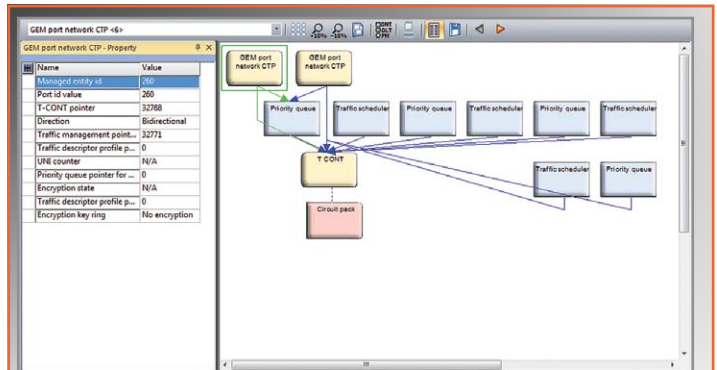
**Information View**  
Network Tree, Data, Signaling and Events



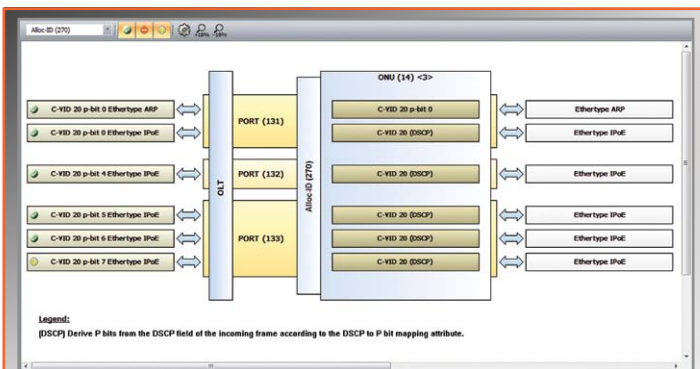
**Upper Layer Analysis**  
Packet Contents and Events



**Performance Monitoring**  
Data Rates, Bandwidth Allocations and Error Rates



**OMCI Analysis**  
Managed Entities and Relations Diagram



**VLAN Routing Analysis**  
VLAN Tagging and Traffic Routing to XGEM Ports

Name	Status	Type	Failed if occurred	Details
Non Sequential				
Sequential				
ONU-PLOAM Message/Registration	Message	✓	No	
OLT-PLOAM Message/Profile	Message	✓	No	
OLT-PLOAM Message/Assign ONU-ID	Message	✓	No	
OLT-PLOAM Message/Ranging Time	Message	✓	No	
OLT-PLOAM Message/Assign Alloc-ID	Message	✓	No	

**Validation Testing**  
Pass/Fail Results for User-defined Test Procedures

# Network Equipment Verification Testing

Ensuring proper operation of NG-PON network components enables equipment manufacturers and chipset developers to build high-quality products and shorten time-to-market. It also enables operators to provide reliable high-bandwidth services to their customers.

The innovative NG-PON Xpert analyzer clearly indicates abnormal behaviors and deviations from the relevant standards, thus verifying standard compliance and interoperability between different vendors' OLTs and ONUs/ONTs.

## Extensive Reporting and Exporting Capabilities

NG-PON Xpert supports the automatic generation of detailed analysis reports in a user-friendly HTML format. Selected information can also be exported in various different formats such as PCAP and CSV.

## Test Automation

NG-PON Xpert includes a Command Line Interface (CLI), enabling integration into an automated test environment. Command Line Wizard application eases the generation of CLI commands for various test scenarios, thus speeding up the testing process, saving time and labor and minimizing mistakes.

## Specifications

Standards Compatibility	G.987, G.987.1, G.987.2, G.987.3 – XG-PON Specifications G.989, G.989.1, G.989.2, G.989.3 – NG-PON2 Specifications G.9807.1 – XGS-PON Specifications G.988 – ONU Management and Control Interface (OMCI) BBF TR-156 BBF IR-247 ONU Conformance Test Plan
EMC Standards	FCC 47CFR Part 15, Subpart B, Class A EN 61326-1, Class A
Safety Standards	IEC 61010-1, EN 61010-1

### For More Information

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Access Network Visibility