

Gfast Xpert™

Multi-Layer Analyzer for G.fast



Complete analysis of the G.fast and Handshake protocols

Neutral unbiased testing tool – no G.fast chipset

Multi-layer analysis including upper layers

Intuitive rich user interface, data export and reports

Unique Multi-layer G.fast Analyzer

Are you ready to test and analyze G.fast products?

The Gfast Xpert is a unique, non-intrusive multi-layer protocol analyzer for G.fast networks and products.

The Gfast Xpert analyzer tests and compares the functionality of DPUs, DSLAMs and CPEs and tests the standard compliance and interoperability of G.fast products from different vendors. It is a powerful tool for G.fast service providers, equipment vendors and technology and chipset companies.

The Gfast Xpert connects to the copper line between the DSLAM /DPU and the CPE. Using multi-layer probing capability it lays out a comprehensive picture of the signals, protocols and traffic running on the line.

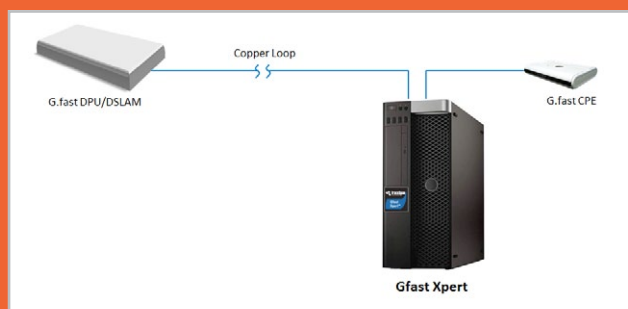
Specifically designed for R&D, laboratory and field application engineers, the Gfast Xpert is a neutral, unbiased testing tool that helps operators and equipment vendors accelerate time-to-market by cutting significant time from development, deployment and troubleshooting of G.fast solutions.

Independent Multi-Layer Analysis

As an independent and unbiased testing platform, Gfast Xpert is built without using any G.fast chipset. Using its unique multi-layer probing capability, it lays out a comprehensive picture of the protocols and traffic running line. It analyzes and displays the Handshake and G.fast protocol layers as well as the upper layers, including Ethernet, PPP, PPPoE, IPv4/IPv6, TCP, UDP, DHCP, IGMP, HTTP, RTP and TR-069.

Passive Connection to the Line

Gfast Xpert connects to the copper line between the DSLAM /DPU and the CPE and monitors the signals and the message exchange on the line.



Reverse Power Feeding Support

Gfast Xpert supports reverse power feeding of the DPU. The optional RPF adaptor separates the feeding current from the G.fast signal and passes it directly to the DPU, thus allowing the Gfast Xpert to be used with CPEs that are integrated with an RPF unit.



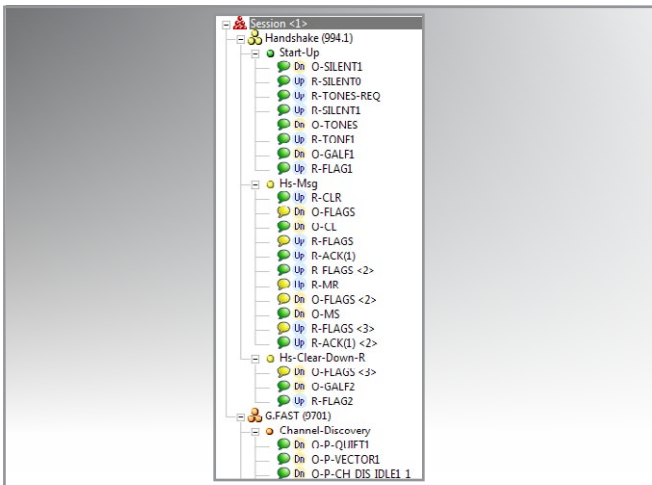
Analysis from the Physical Layer and Up

The Gfast Xpert analyzer captures the signals from the line and provides comprehensive analysis of the physical layer as analog signal graphs in the time domain and the frequency domain.

By further analyzing the signals it identifies the messages and their contents and simultaneously presents the message exchange in both the downstream and upstream directions as well as the relations between the two.

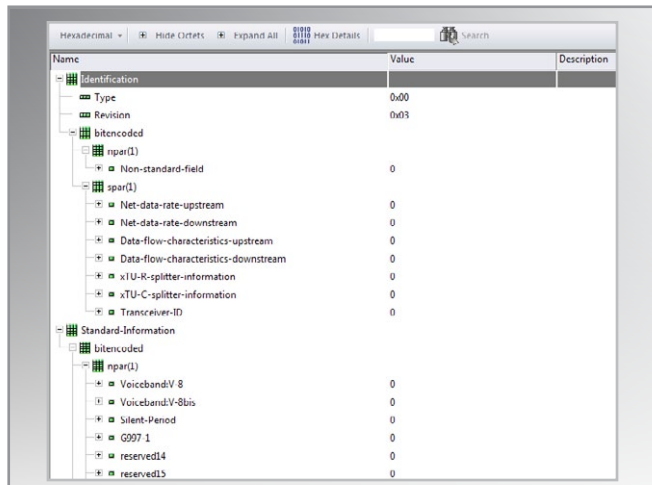
Intuitive User-Friendly Tool

The Gfast Xpert features a rich array of intuitive displays, graphs and tables for testing and troubleshooting of the G.fast components. The displayed information includes signals, downstream and upstream messages, events, sequences, statistics and more.



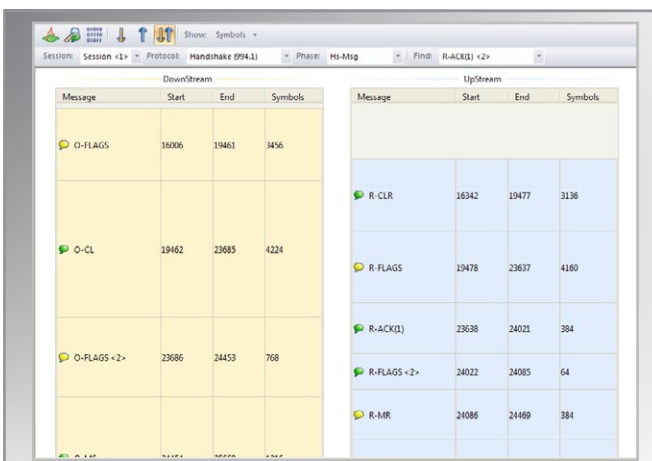
Message Flow

Color-Coded View of Handshake, Initialization and Showtime Messages



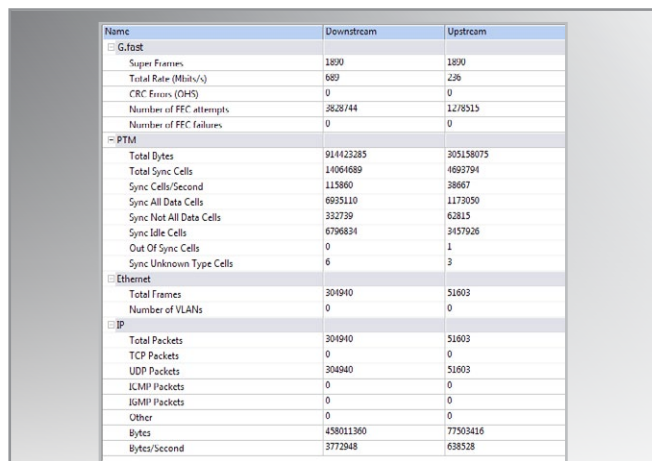
Details View

Message Content Details



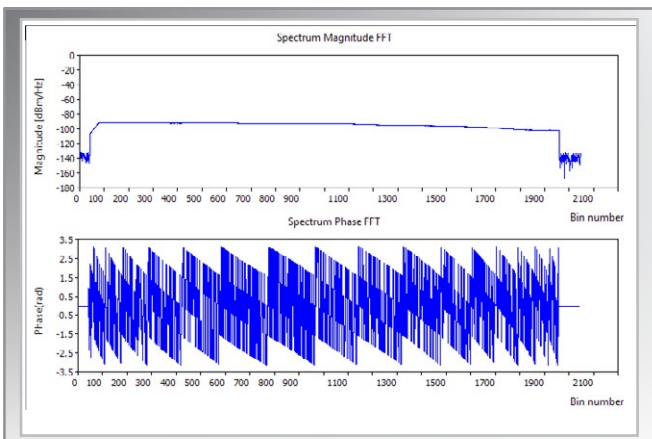
Sequence View

Bi-Directional Timeline



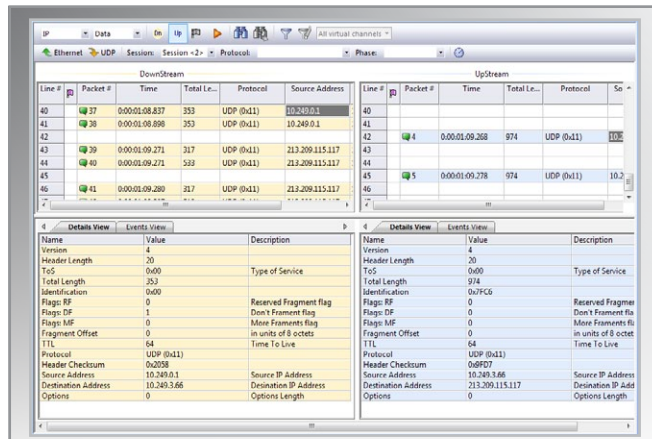
Multi-layer Statistics View

Number of Frames, Data Rates and Errors at Every Layer



Signals View

Signal, Spectrum and Constellation Map



Upper Layer Analysis

Detailed Packet Contents and Events

Standard Compliance Verification and Interoperability Testing

Ensuring proper operation of the G.fast network elements enables equipment manufacturers and chipset vendors to build high-quality products and shorten time-to-market. It also provides flexibility to operators in providing reliable high-bandwidth services to their customers.

Gfast Xpert clearly indicates abnormal behaviors and deviations from the relevant standards, thus verifying standard compliance and interoperability between different vendors' DSLAMs or DPUs and CPEs.

Extensive Reporting and Exporting Capabilities

Gfast Xpert supports the generation of detailed analysis reports in a user-friendly HTML format. Selected information can also be exported for further analysis in various formats, such as PCAP and CSV.

Test Automation

Gfast Xpert includes a Command Line Interface (CLI), enabling its integration into an automated test environment. The built-in Command Line Wizard application eases the generation of CLI command for various test scenarios, thus speeding up the testing process, saving time and labor and minimizing human errors.

Specifications

Standards Compatibility	G.9700 – G.fast Power Spectral Density Specification G.9701 – G.fast Physical Layer Specification G.994.1 – Handshake Procedures
Profiles support	106x and 212x
EMC Standards	FCC 47CFR Part 15, Subpart B, Class A EN 61326-1, Class A
Safety Standards	IEC 61010-1, EN 61010-1



Access Network Visibility

For More Information

Visit: www.tracespan.com

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