

Ethernet Test Module

FTB-8510 Packet Blazer



Fully integrated functionality for SLA verification of Ethernet-based packet services

Throughput, back-to-back, latency and frame loss measurements

Dual test ports for lab benchmarking of Ethernet devices

Remote control via the LAN connection under test for end-to-end performance testing



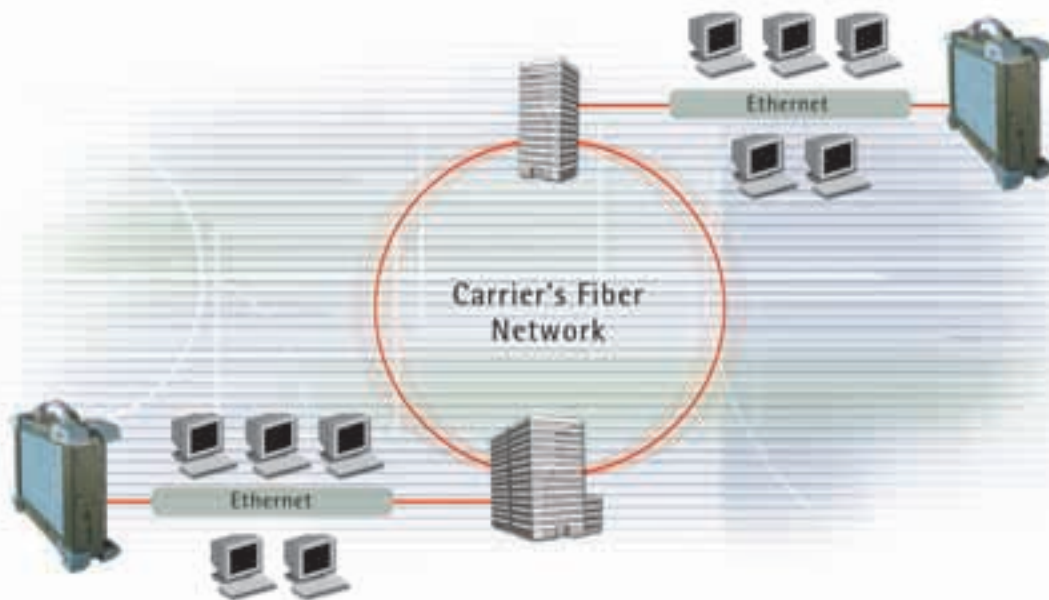
Fiber-optic T&M,
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EXFO

Delivering SLA Assurance

Housed in the FTB-400 Universal Test System, the FTB-8510 Packet Blazer™ Ethernet Test Module brings service-level agreement (SLA) verification to Ethernet-based packet services. EXFO's FTB-8510 tests transparent connectivity in its native format: 10/100/1000Base-T, 1000Base-SX, 1000Base-LX and 1000Base-ZX for LAN-to-LAN services delivered via:

- ATM
- Frame relay
- Next-generation SONET/SDH
- SONET/SDH hybrid multiplexers
- Switched Ethernet
- VLANs
- Dark fiber
- WDM



Key Features

- Dual test sets feature enables end-to-end performance testing (as specified by leading standards bodies) by controlling a remote Packet Blazer via the LAN connection under test
- Dual test ports for lab benchmarking of Ethernet devices
- Measures throughput, burstability, latency and frame loss
- Simultaneous traffic generation and analysis at 100% wire speed for 10, 100 or 1000Base-T, 1000Base-SX, 1000Base-LX and 1000Base-ZX full-duplex networks at all packet sizes
- Testing of transparent LAN services (TLS) with wire-speed, full-duplex 10, 100 or 1000 Mb/s traffic-generation capabilities
- Easy-to-use Smart User Interface (SUI) for configuration screens, customization of test routines, reporting on real-time and historical performance
- EtherBERT™ (patent-pending) for bit-error-rate testing of 10, 100 and 1000 Mb/s Ethernet circuits
- IEEE 802.1p/Q framing capability to test RFC2544 in a layer 2 VLAN environment

A Highly Efficient and Reliable Test Solution

With the FTB-8510 Packet Blazer, you can test both telecom and packet services, as well as conduct end-to-end performance testing. The FTB-8510 ensures long-term integrity and error-free data delivery across Ethernet WAN links.

User-Friendly Interface

The easy-to-use Smart User Interface (SUI) lets you tailor screen configurations, customize test routines and format reports on real-time and historical performance.

First-Class Comprehensiveness

The FTB-8510 performs transparent LAN service (TLS) testing with wire-speed, full-duplex 10, 100, 1000 Mb/s traffic-generation capabilities. It delivers simultaneous traffic generation and analysis at 100% wire speed for 10/100/1000Base-T, 1000Base-SX, 1000Base-LX and 1000Base-ZX full-duplex networks at all frame sizes. The FTB-8510 also features EtherBERT for bit-error-rate testing of 10/100/1000 Mb/s Ethernet circuits.



Smart User Interface

Frame Analysis

This FTB-8510 Packet Blazer feature enables traffic generation and analysis, allowing you to troubleshoot an Ethernet circuit and analyze customer traffic for errors.

EtherBERT Analysis

The EtherBERT functionality lets you test transparent Gigabit Ethernet circuits running over a WDM network as if they were SONET/SDH circuits on the same WDM network.

Performance Analysis (RFC2544)

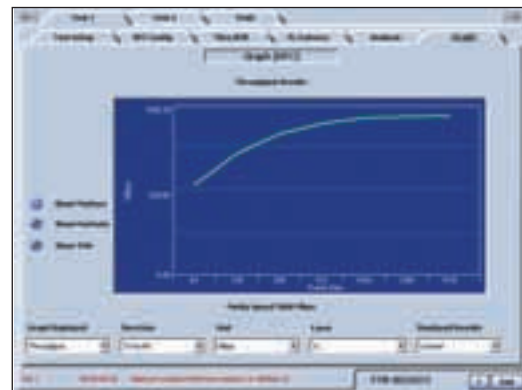
RFC2544 measurements (throughput, back-to-back, frame loss and latency) provide a basis for service providers and their customers to define service-level agreements (SLAs). They enable service providers to validate the quality of service (QoS) delivered, and can provide them with a tool to create value-added services that can be measured and demonstrated to customers. By offering different classes of services, a service provider can create new revenue sources based on better, measurable performance.



Frame Analysis



RFC2544 Configuration



RFC2544 Graph

Specifications¹

	FTB-8510 ²	FTB-8510-1 ²	FTB-8510-2
Ports	Two 10/100Base-T	Two 10/100Base-T and one Gigabit Ethernet	Two 10/100Base-T and two Gigabit Ethernet
Connector types	RJ-45 (ISO 8877)	RJ-45 (ISO 8877) and LC	RJ-45 (ISO 8877) and LC
Connect speed (Mb/s)	10/100	10/100/1000	10/100/1000
Duplex mode	Full/half-duplex auto-negotiation	Full/half-duplex auto-negotiation	Full/half-duplex auto-negotiation
Maximum port capacity (Mb/s)	200 (bidirectional)	2000 (bidirectional)	2000 (bidirectional)
Ethernet testing	RFC2544 RFC1242	RFC2544 RFC1242	RFC2544 RFC1242

General Specifications

Size (H x W x D)	2.5 cm x 9.6 cm x 26 cm	(1 in x 3 in x 10 in)
Weight (without transceivers)	0.5 kg	(1.1 lb)
Temperature		
operating	0 °C to 40 °C	(32 °F to 104 °F)
storing	-40 °C to 60 °C	(-40 °F to 140 °F)

Safety

21 CFR 1040.10 and IEC 60825-1 CLASS 1 LASER PRODUCT

Notes

- Similar specifications apply to the IQS-8510 Packet Blazer module, designed for the IQS-500 platform.
- Upgrade kit also available for FTB-8510 Packet Blazer, providing one or two Gigabit Ethernet ports.

Ordering Information

Module

FTB-85XX-XX

Model ——— Software
 FTB-8510 A-1.6.1 = Packet Blazer software release 1.6.1
 FTB-8510-1 A-1.7.0 = Packet Blazer software release 1.7.0
 FTB-8510-2

Example: FTB-8510-2

For Gigabit Ethernet optical interfaces, FTB-859x Transceivers have to be ordered separately.

Transceivers

FTB-859x = Transceivers
 FTB-8590 = 1000Base-SX (850 nm) LC connectors; optical SFP transceiver module for IQS-8510 Packet Blazer
 FTB-8591 = 1000Base-LX (1310nm) LC connectors; optical SFP transceiver module for IQS-8510 Packet Blazer
 FTB-8592 = 1000Base-ZX (1550nm) LC connectors; optical SFP transceiver module for IQS-8510 Packet Blazer

Test Kit

TK-400-8500-XX-XXX-XX-FTB-85XX-XX-XX-XX-XX

Screen code

D3 = STN passive screen
 D4 = TFT active screen

Memory

N10 = 256 MB
 N12 = 512 MB

Expansion unit

00 = 2-slot module receptacle
 H = 7-slot module receptacle

Model

FTB-8510
 FTB-8510-1
 FTB-8510-2

Software

A-1.6.1 = Packet Blazer software release 1.6.1
 A-1.7.0 = Packet Blazer software release 1.7.0

Transceiver 1550 nm options (1000Base-ZX)

8592-1 = 1 transceiver module
 8592-2 = 2 transceiver modules

Transceiver 1310 nm options (1000Base-LX)

8591-1 = 1 transceiver module
 8591-2 = 2 transceiver modules

Transceiver 850 nm options (1000Base-SX)

8590-1 = 1 transceiver module
 8590-2 = 2 transceiver modules

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UNIVERSAL TEST SYSTEM

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Optical Fiber

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- PMD
- Chromatic Dispersion Analyzer
- Multiwavelength Meter

DWDM Test Systems

Protocol

- 10/100 and Gigabit Ethernet
- SONET/SDH (DSO to OC-192c)
- SDH/PDH (64Kb/s to STM-64c)

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