

Creating a Fibre Channel BERT Test Case

The **BERT Fibre Channel** test allows Fibre Channel unframed, Layer 1, and Layer 2 traffic generation with a specific test pattern for Bit Error Rate analysis.

1

Select **Fibre Channel** as the Interface Type.
Select **Single Port** or **Dual Ports** as test topology.
Press the **BERT** test button.

2

Press **Port** and select the port parameters.

Speed: Available speeds are **1x**, and **2x**.
PSP (Link Protocol): The Primitive Sequence Protocol (PSP) allows link management when the check box is selected and bypass the link management protocol when the check box is cleared.

3

Press **Framing** and select the framing parameters.
FC Unframed, FC Unframed with Enable Sync, FC Framed Layer 1, and FC Framed Layer 2.

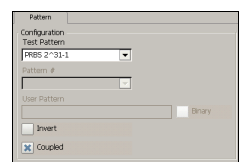
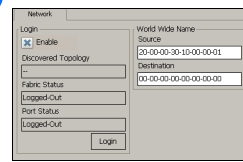
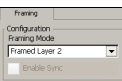
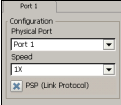
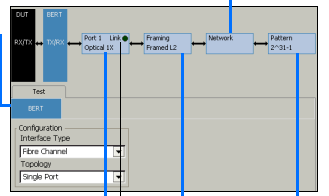
4

Press **Network** and select the login parameters.

Login button: Initiates the Login process when the **Enable** check box is selected.
World Wide Name: Enter the WWN source and destination (Fabric only) addresses.

5

If required, press **Pattern** to select a different pattern than the default.



Starting the Test Case and Getting Results

1

Press **Start**.

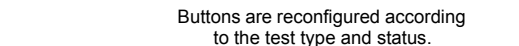
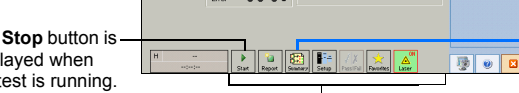
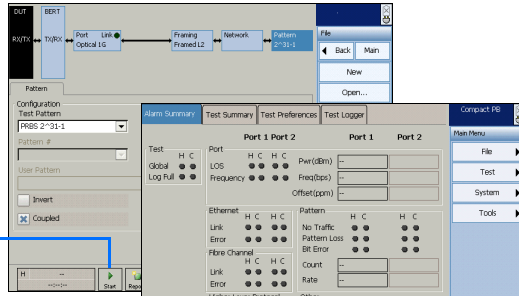
The **Stop** button is displayed when the test is running.

2

Press **Test** to access options and results.
For **EtherSAM**, see **EtherSAM Configuration** tabs for additional configuration parameters.
For **Frame Analyzer**, see **Stream Generation** tabs for additional configuration parameters.

3

Press **Summary** to get summary test results, alarms/errors, test preferences, and test logger.



Buttons are reconfigured according to the test type and status.

Menus

Ethernet Test	
Interface Setup	Port Setup, Network Setup, Advanced Auto-Neg TX/RX
Port	Electrical TX/RX, Optical TX/RX
Traffic Analyzer	Eth. TX/RX, Eth. Stats, PBB-TE, Higher Layers, Filters, Capture, Graph, PM
Stream Gen.	Overview, Stream Cfg, MAC, IP/UDP/TCP, Payload
Stream Analyzer	Overview, Stream
Pattern	Pattern TX/RX, PM
RFC 2544	Config: Global, Throughput, Back-to-Back, Frame Loss, Latency; Results: Throughput, Back-to-Back, Frame Loss, Latency, Graph
EtherSAM	Config: Overview, Services, Ramp, Burst; Results: Overview, Configuration Test, Performance Test
TCP Throughput	Config: TCP Throughput, Results: TCP Throughput
Advanced Test	Service Disruption Time
Fibre Channel Test	
Interface Setup	Interface
Port	Optical TX/RX
Pattern	Pattern TX/RX, PM
Traffic Analyzer	FC TX/RX, Latency, FC Stats, PM
File	
New (Clears the current test case), Open (Opens a saved test case configuration), Save As (Saves the test case configuration), Report (Generates a test report; not available on the FTB-200 v2), About	
System	
Preferences (Application Preferences, Eth. Test Preferences, IPv6 Test Preferences, FC Test Preferences), Module Information (Software Package, Module Description, Hardware Options), Software Options	
Tools	
Ping & Trace Route, ENIU and OAM (ENIU Config, ADC Config, 802.3ah Config, 802.3ah Stats, 802.3ah Events), Traffic Scan	
Note: Menus availability depends on the test case, module model, and enabled options.	

Buttons

	Starts test. Available when the test is created and not running.		Stops test. Available when the test is running.
	Resets the history (H) alarm and error LEDs. Available when the test is running.		Resets counters (seconds, count, and rate), test timer and both history (H) and current (C) LEDs for the entire test case. Also resets the logger. Available when the test is running.
	Gives access to the Alarm Summary , Test Summary , Test Logger , and Test Preferences tabs.		Brings the user to the test setup screen allowing the selection and configuration of each node of the test path.
	Provides access to 10 default or customer defined test case configurations. Available when the test is not running.		Allows the configuration of the thresholds to which each statistic will be compared to declare a verdict of Pass or Fail .
	Indicates that the laser control is off. Pressing this button will activate the laser immediately by emitting an optical laser signal.		Indicates that the laser control is on. Pressing this button will turn off the laser. The laser control button is not affected when generating a LOS.
	Generates a report of the current test. Available when the test is not running. Only available on the FTB-200 v2.		Generates pattern bit error according to the amount selected on the Pattern TX tab. Only available with BERT when the test is running.
	Displays the help information on the current window.		Closes the current application.
	Captures the current window and saves it to a file.		

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Quick Reference Guide

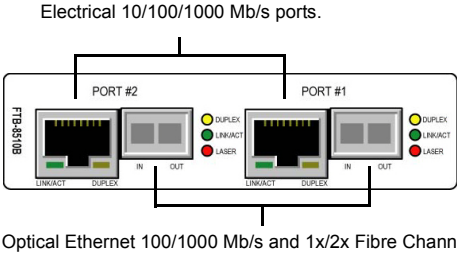
ETHERNET TEST MODULE

FTB-8510B
Packet Blazer for FTB-200

The FTB-8525/8535 **Packet Blazer™** brings performance assurance to Ethernet-based services.

Physical Interfaces

Connect the Ethernet or Fibre Channel signal to be tested/monitored to the corresponding interface on the module. For optical interfaces, make sure the proper SFP is inserted.

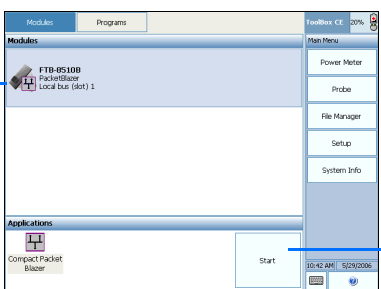


Starting the Application

From **ToolBox CE**, press the **FTB-8510B** module.

1

Press **Start**.



For more information, refer to the user guide.



Creating an EtherSAM (Y.1564) Test Case

The **EtherSAM** test validates the key performance indicators of Carrier Ethernet-based services.

Dual Test Set allows end-to-end, bidirectional performance validation with two test sets.

1

Select **Ethernet 10/100/1000** as the Interface Type.
Press the **EtherSAM (Y.1564)** test button.
Select the sub-tests check box as required.
Configuration Test verifies, for each service, if the network rate limiting and traffic shaping are correctly configured.
Performance Test runs multiple services simultaneously to verify that SLA parameters are met over time.

2

When required, select **Dual Test Set**, set the **Mode to Remote**, and type an ID for this unit.

3

Press **Port** and select the port parameters.

4

Press **Network** and set the MAC and IP parameters.

5

PBB-TE or MPLS testing may be enabled. Press the **MPLS** or **PBB-TE** tab and configure the MPLS/PBB-TE interface parameters.

6

If **Dual Test Set** has been selected in step 2, the configuration of the remote module is completed. Setup the EtherSAM test on the local module by proceeding with steps 1 through 5 then 7. However, in step 2, set the **Mode to Local**

7

Press **Remote Module**. Press **ScanSubnet**. Select and connect the remote module or enter the remote module IP address manually.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.

Creating a Frame Analyzer Test Case

The **Frame Analyzer** test allows multiple streams generation and analysis. **Through Mode** testing may be enabled.

1

Select **Ethernet 10/100/1000** as the Interface Type.
Select **Single Port** or **Dual Ports** as test topology.
Press the **Frame Analyzer** test button.
Enable **Through Mode** when required.

2

Press **Port** and select the port parameters.

3

Press **Network** and set the MAC and IP parameters.

4

If required, press the **VLAN** tab and select the VLAN parameters.

5

PBB-TE or MPLS testing may be enabled. Press the **MPLS** or **PBB-TE** tab and configure the MPLS/PBB-TE interface parameters.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.

Creating an RFC 2544 Test Case

The **RFC 2544** test allows **Throughput**, **Back-to-Back**, **Frame Loss**, and **Latency** performance tests as per RFC 2544.

Dual Test Set allows end-to-end, bidirectional performance testing with two test sets.

1

Select **Ethernet 10/100/1000** as the Interface Type.
Press the **RFC 2544** test button.
Select the sub-tests check box as required.

2

When required, select **Dual Test Set**, set the **Mode to Remote**, and type an ID for this unit.

3

Press **Port** and select the port parameters.

4

Press **Network** and set the MAC and IP parameters.

5

If required, press the **VLAN** tab and select the VLAN parameters.

6

If **Dual Test Set** has been selected in step 2, the configuration of the remote module is completed. Setup the RFC 2544 test on the local module by proceeding with steps 1 through 5 then 7. However, in step 2, set the **Mode to Local**.

7

Press **Remote Module**. Press **ScanSubnet**. Select and connect the remote module or enter the remote module IP address manually.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.

Creating a Smart Loopback Test Case

The **Smart Loopback** test allows transmitting back the received stream of data by interchanging the source and destination addresses (Layer 2 to Layer 4).

1

Select **Ethernet 10/100/1000** as the Interface Type.
Select **Single Port** or **Dual Ports** as test topology.
Press the **Smart Loopback** test button.

2

Press **Port** and select the port parameters.

3

Press **Network** and set the MAC, VLAN, and IP parameters.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.

Creating an Ethernet BERT Test Case

The **BERT** test allows Ethernet unframed, Layer 1 to Layer 4 traffic generation with a specific test pattern for Bit Error Rate analysis.

1

Select **Ethernet 10/100/1000** as the Interface Type.
Select **Single Port** or **Dual Ports** as test topology.
Press the **BERT** test button.

2

Press **Port** and select the port parameters.

3

Press **Framing** and select the framing parameters.

4

Press **Network** and set the stream parameters.

5

If required, press the **VLAN** tab and select the VLAN parameters.

6

If required, press **Pattern** to select a different pattern than the default displayed.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.

Creating a TCP Throughput Test Case

The **TCP Throughput** test generates and evaluates TCP traffic performance between two test sets in the network providing TCP Throughput statistics and round trip time. First create the test on the remote module then on the local.

1

Select **Ethernet 10/100/1000** as the Interface Type.
Select **Single Port** as the test topology.
Press the **TCP Throughput** test button.

2

Press **Port** and select the port parameters.

3

Press **Network** and set the stream parameters.

4

Press **Test, TCP Throughput, and Configuration**.
On the remote module, select **Remote** as the **TCP Mode**.
On the local module, select **Local** as the **TCP Mode** and enter the **Remote IP Address** of the remote module.

1

At this point you should have a link up indicated by a green **Link LED**.
Note: For electrical port, if the link is down, make sure that the **Ethernet port crossover** setting is correct.