

LTS-1600 Series

1.6T TRAFFIC GENERATOR AND DESIGN VALIDATION SOLUTION

- Powerful 1.6T Ethernet traffic generator and 1600ZR transceiver test solution for validating AI infrastructure. Delivers up to 6.4T total test capacity across four independent coherent ports with support for OSFP-IHS and OSFP-RHS configurations.



KEY FEATURES AND BENEFITS

1.6TE test platform for transceiver, cable, and system validation:

Test 1.6T Ethernet interfaces at full capacity and perform 200G lane analysis at 224G SerDes

Scalable port configuration, from one to four ports: Start with the number of test ports you need today and expand as validation requirements grow.

Supports OSFP-IHS and OSFP-RHS modules on the same platform: Mix and match OSFP-IHS and OSFP-RHS modules on the same platform and choose where each is positioned.

Run up to four independent coherent ports in parallel: Test 1.6T coherent optics across four ports, with each port operating as an independent test engine.

Fine-tune setups live before formal test runs: Adjust parameters and validate behavior in 'live mode' before performing a formal test run for reporting purposes.

Support for multiple 1.6T breakout configurations: Test 1.6T interfaces with flexible 2x800G and 8x200G breakouts.

Full-featured 1600ZR transceiver testing: Adjust wavelength and TX power, and visualize optical metrics for a complete picture of transceiver health.

Configurable web-based GUI built for lab workflows: Personalize test screens and save custom layouts for specific validation scenarios.

Optimized API-based test automation: Automation is available through a comprehensive and easy-to-use REST API, enabling customized lab environment workflows.

Dual-port testing for cable validation: Validate up to four transceivers or two cables at the same time to scale up high-capacity testing.

RELATED PRODUCTS



BA-1600-OSFP
1.6T dual-port bit analyzer



BA-1602 Series
1.6T bit analyzers

DISCOVER A WEB-BASED USER INTERFACE DESIGNED FOR LAB ENVIRONMENTS

A web UI built for the way labs actually work. Go deeper into transceiver validation with the LTS-1600's web-based GUI built for R&D teams in lab, manufacturing, and hyperscaler environments. The LTS-1600 turns compliance and testing into structured, repeatable workflows across the design, validation and debug process—guiding engineers through complex lab processes to discover errors and important information they would not otherwise have seen.

- Configure a wide range of test parameters, access more transceiver options, and personalize screens for specific test scenarios.
- Save and recall custom layouts to accelerate repeat testing while maintaining the flexibility needed for advanced, experimental validation workflows.

FINE TUNE SETUPS LIVE BEFORE FORMAL TEST RUNS

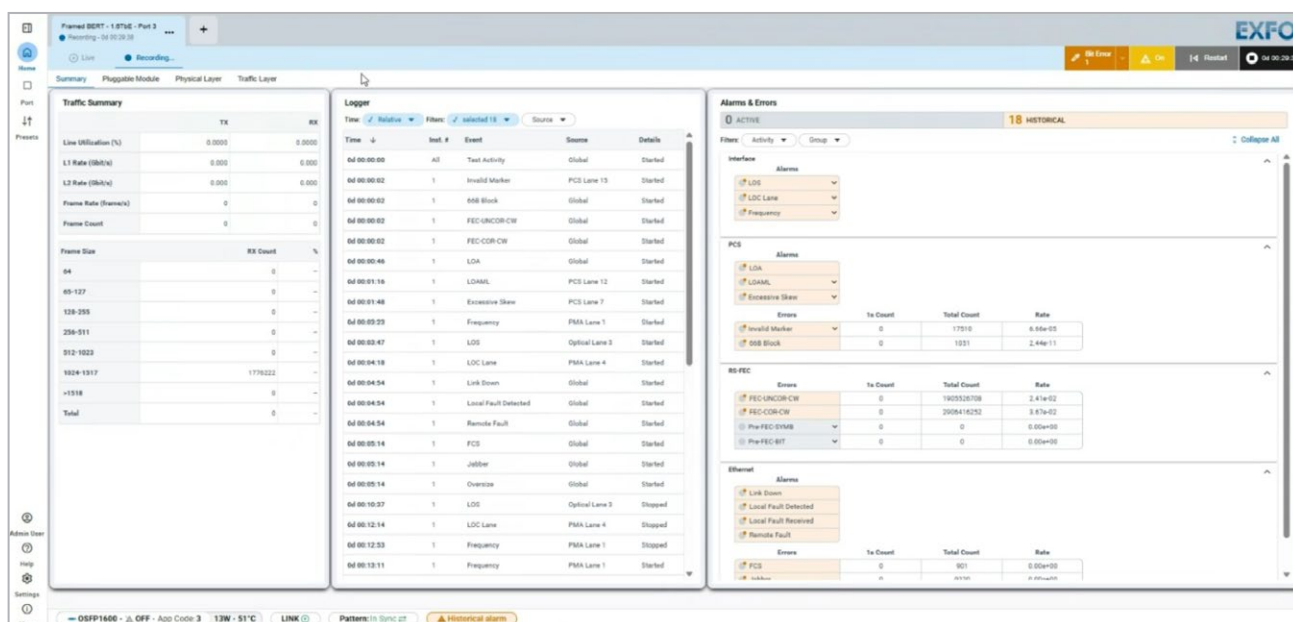
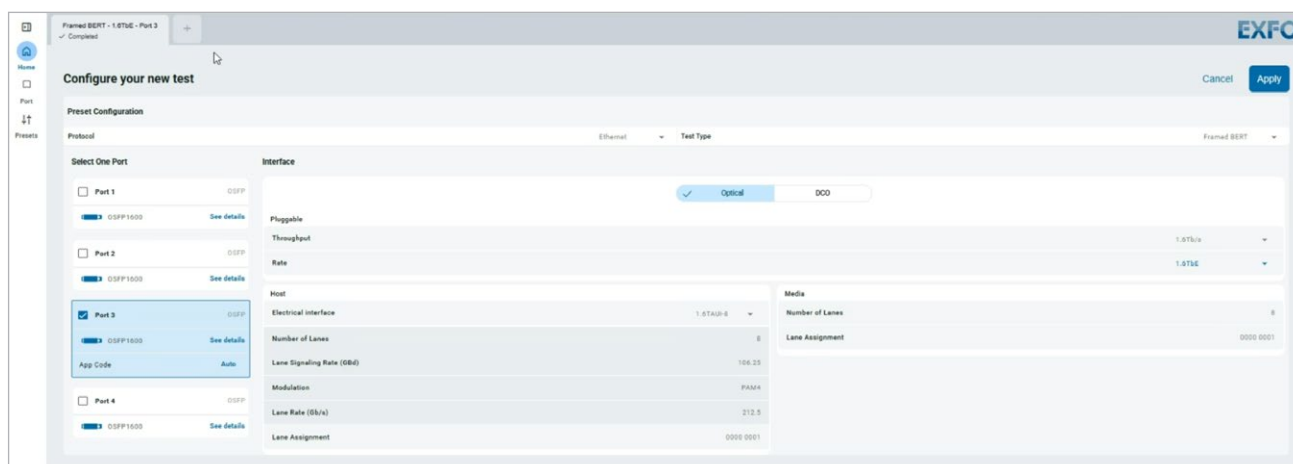
Use the LTS-1600 Series' web-based user interface in unrecorded dry-run Live Mode or capture a complete, detailed test run in Recorded Mode. Engineers can experiment with confidence, finalize the configuration, and document only the results they trust.

Live Mode Live

Designed for real-time troubleshooting, optimization, and exploratory testing.

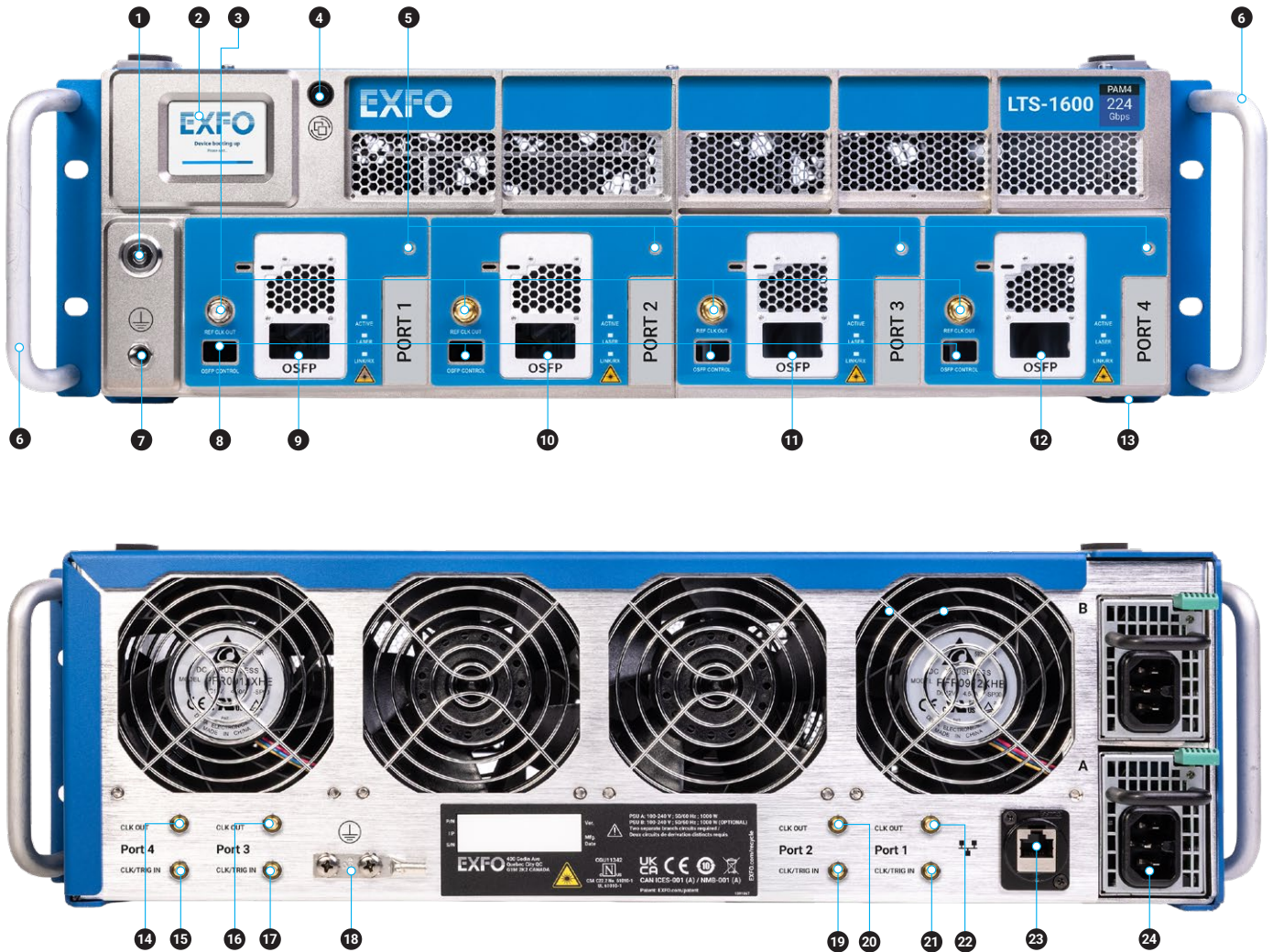
Recorded Mode Recorded

Designed for formal test execution and results capture.



DESIGNED FOR TRAFFIC GENERATION AND TRANSCEIVER VALIDATION

- | | | | |
|--------------------------------|-----------------------------|----------------------------------|------------------------------------|
| 1 Power button | 7 Ground jack | 13 Benchtop feet pads | 19 Port 2 clock/trigger input |
| 2 Display | 8 OSFP control | 14 Port 4 reference clock output | 20 Port 2 reference clock output |
| 3 Reference clock output (SMA) | 9 Port 1 (OSFP IHS or RHS) | 15 Port 4 clock/trigger input | 21 Port 1 clock/trigger input |
| 4 LCD navigation button | 10 Port 2 (OSFP IHS or RHS) | 16 Port 3 reference clock output | 22 Port 1 reference clock output |
| 5 External fan bracket | 11 Port 3 (OSFP IHS or RHS) | 17 Port 3 clock/trigger input | 23 Management port |
| 6 Rackmount kit | 12 Port 4 (OSFP IHS or RHS) | 18 Ground lug | 24 Hot-swappable power supply unit |



SPECIFICATIONS

Mainframe	Quad-core Intel® processor / 16 GB RAM
Management port	RJ45 LAN 10/100/1000 Mbit/s ports
Storage (GB)	256
Power supply	Power supply AC input: 100 V - 240 V; 50/60 Hz, PSU A:10 A - 4.2 A; PSU B (optional): 10 A - 4.2 A
Number of ports	Support of four ports either IHS or RHS
Size (H × W × D)	150 mm × 481 mm × 600 mm (5.91 in × 18.94 in × 23.62 in)
Weight	20 kg (44 lb)
Temperature (operating)	0 °C to 40 °C (32 °F to 104 °F)
Temperature (storage)	-40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0% to 80% non-condensing

SUMMARY OF KEY FEATURES

Compliance testing	IEEE 802.3dj standard
Multi-interface support	QSFP MSA revision 5.22, pluggable MSA-compliant 4×QSFP optical transceiver
Line rate (Gbit/s)	212.5
Physical-layer validation	• PCS lane mapping and monitoring capability • Per-lane measurement • PCS error generation and monitoring per lane • Full MDIO / I2C and I3C read / write access
Transceiver and cable validation	QSFP, AOC, DAC and breakout cables
Breakout cable support	Verification of 2×800G breakout cables providing optical Tx/Rx power, L2 and L3 traffic and BERT statistics per link
Power measurement per lane	Optical channel power measurement with color indicators
Frequency measurements	Provides per lane frequency measurement of the received signal
BERT	BERT framed testing using different parameters and different frame sizes, including EMIX and latency
Error injection mode	Manual, rate and continuous (maximum rate)
Rx frame-size analysis	64, 65 - 127, 128 - 255, 256 - 511, 512 - 1023, 1024-1518 and > 1518
Rx rate	Line utilization (%), Ethernet bandwidth (Mbit/s), frame rate (frame/s), and frame count
Ethernet alarms	Link down, local fault detected, local fault received, remote fault, LOA and frame loss
PCS lane alarms and errors	LOS, LOC-lane, LOAML, excessive skew, Inv. Marker, Pre-FEC Symb errors and Pre-FEC bit errors
Pre-emphasis	Pre-/main-/post-cursor options to improve electrical waveform including gray encoding and Pre-coding
FEC	Generation and analysis of FEC correctable and uncorrectable errors, local and remote degraded SER errors monitoring (error-free and uncorrectable) and percentage
FEC statistics	Number of symbol errors per correctable codeword, number of pre-FEC symbol errors and bit statistics, codeword count
Automation	Wide range of commands available per application to allow test automation
Reporting	Test results are included in a report that can be generated and downloadable in JSON format

ACCESSORIES

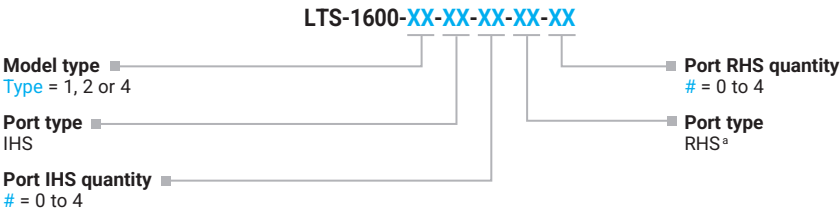
GP-10-101	Ruggedized carrying case	GP-2257	Rackmount brackets (kit of 2)
GP-2016	RJ45 LAN cable (10 feet)	GP-2259	Benchtop feet pads

LASER SAFETY



The test modules that you use with your unit may have different laser classes. Refer to the module's documentation for exact information.

ORDERING INFORMATION



Example: LTS-1600-4-IHS-2-RHS-2 – two ports IHS and two ports RHS

a. Quantity will be determined automatically based on the quantity of IHS ports selected.

EXFO headquarters T +1 418 683-0211 Toll-free +1 800 663-3936 (USA and Canada)

EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to www.EXFO.com/contact.

For the most recent patent marking information, please visit www.EXFO.com/patent. EXFO is certified ISO 9001 and attests to the quality of these products. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. **Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.**

For the most recent version of this spec sheet, please go to www.EXFO.com/specs.

In case of discrepancy, the web version takes precedence over any printed literature.

