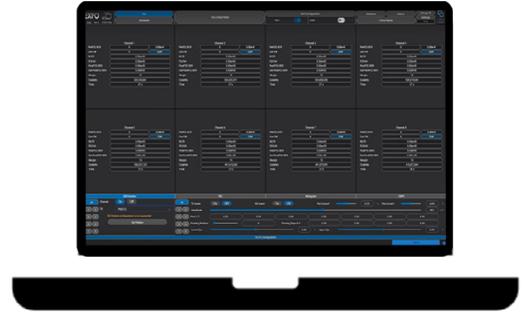


BA-1600-OSFP

1.6T DUAL-PORT BIT ANALYZER

- Achieve up to 3.2T total test capacity with two independent 1.6T OSFP ports. Test solution optimized for cable and transceiver validation.



KEY FEATURES

Test two 1.6T transceivers or an end-to-end high-speed interconnect using the dual OSFP ports

Full lifecycle validation for 1.6T, 800G and 400G across lab, fab and live environments

Superior hardware design: native OSFP interfaces, excellent signal quality, clean eye diagram and low error floor

Real-time FEC generation and analysis: testing of pre/post FEC BER, symbol error distribution and FEC margin

BLER: Block error ratio statistics and an efficient FLR estimation mechanism, addressing the time constraints of ultra-low BER measurements

PAM4 support for validating high-speed signaling performance

High-performance signal integrity and BER testing for validating compliance and performance in next-gen 1.6T transceivers and cables

User-friendly GUI streamlines workflows, and reduces learning curves

I²C register read/write access enables the direct control and monitoring of device parameters for fast, low-level diagnostics and efficient debugging

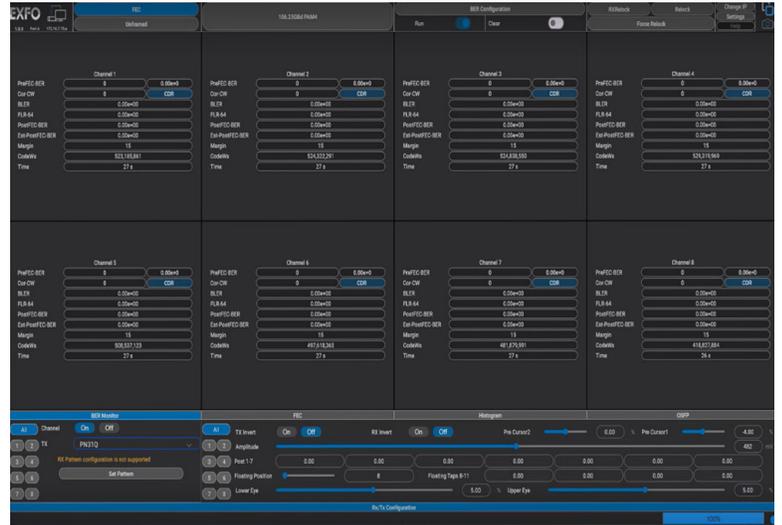
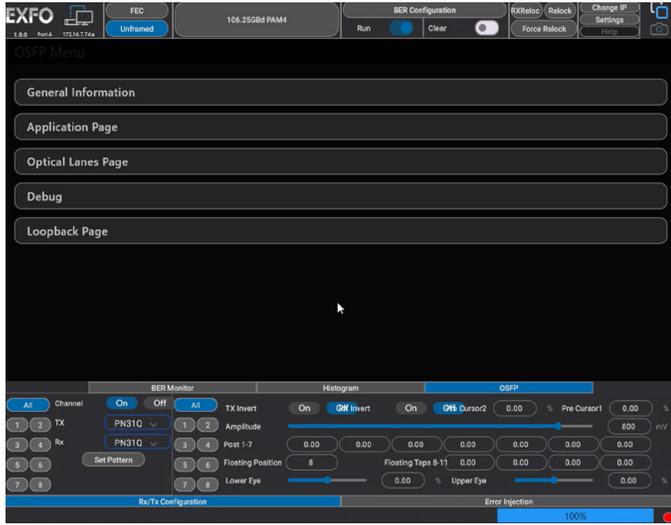
“Save-and-load” functionality for all applicable parameters reduces valuable time and ensures test consistency

Automation simplifies complex test configurations and speeds up validation using a complete API suite

I²C Target 3-pin connector that allows for external control of the OSFP

POWERFUL AND SIMPLIFIED USER INTERFACE

The BA-1600-OSFP's graphical user interface (GUI) provides simplified and real-time test results per channel. It requires an external Windows-based PC with Ethernet capability to run the GUI and API.



General Information		Module Specifics	
Module ID	OSFP	Current	Max
Vendor Name	OSFP	Module Temp	30.00°C
Part Number		Module Vdd	1.20V
Serial Number		Module Current	228.4
Host Power SW	OSFP	Module Power	3.00 W
OSFP Revision	18		

Channel 1

BER: **6.08e-06** CDR

Errors: **8421258** Sync

Bits: **1,384 Gbits**

Time: **6 s**

Pre-FEC BER
 Pre-FEC Error Bits
 Total Bits
 Time/Second

Currently active App Code: 7

Target App Code: Auto

Application Selector	Host Interface ID	Media Interface ID	Host Lane Count	Media Lane Count	Host Lane Assignment	Media Lane Assignment
1	IB XDR(A0h)	800GBASE-DR4(77h)	4	4	00010001b	00010001b
2	IB XDR(A0h)	400GBASE-DR2(75h)	2	2	01010101b	01010101b
3	IB XDR(A0h)	200GBASE-DR1(73h)	1	1	11111111b	11111111b
4	200GAUI-1(80h)	200GBASE-DR1(73h)	1	1	11111111b	11111111b
5	400GAUI-2(91h)	400GBASE-DR2(75h)	2	2	01010101b	01010101b
6	800GAUI-4(82h)	800GBASE-DR4(77h)	4	4	00010001b	00010001b
7	1.6TAUI-8(83h)	1.6TBASE-DR8(7Fh)	8	8	00000001b	00000001b
8	End of list(FH)	Undefined(00h)	0	0	00000000b	00000000b

Channel 5

PreFEC BER: **9010** 9.08e-11

Cor-CW: **8733** CDR

BLER: **0** 0.00e+0

FLR-64: **0.00e+00**

PostFEC BER: **0.00e+00**

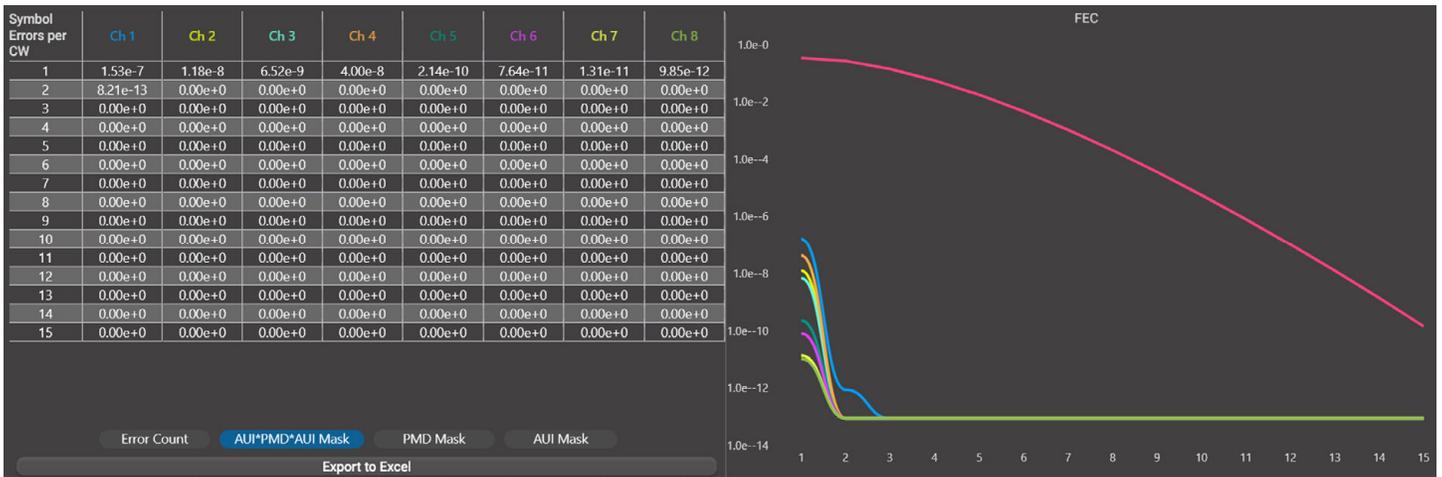
Est-PostFEC BER: **0.00e+00**

Margin: **13**

CodeWs: **18,240,161,364**

Time: **937 s**

Pre-FEC Error Bits
 Pre-FEC BER
 Correctable Codewords
 Sum of blocks with ≥ 16 symbol errors
 Block Error Ratio
 Frame Loss Ratio-Oct
 Post-FEC BER
 Estimated Post-FEC BER
 FEC Margin
 Total Codewords
 Time/Second



FEC channel distribution and BLER mask testing

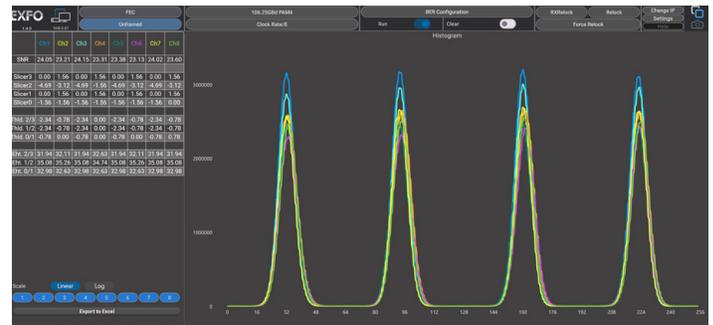


Reference clock

WITH PAM4 CODING, A SIMPLE BER TEST IS NOT ENOUGH



FEC symbol error margin

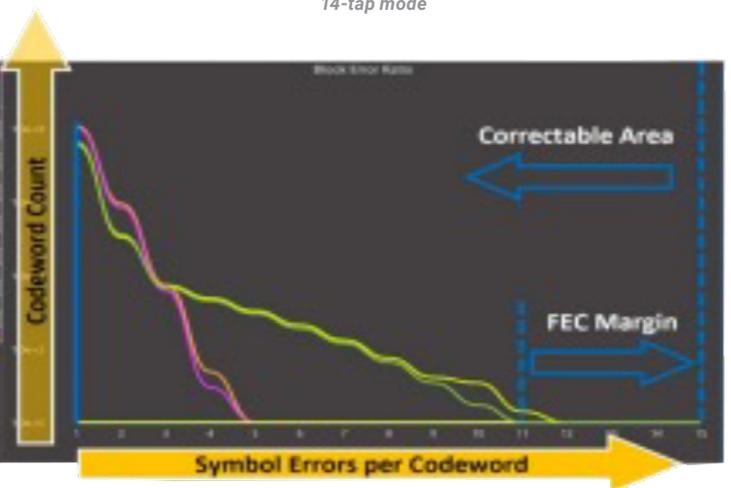


Channel histogram



14-tap mode

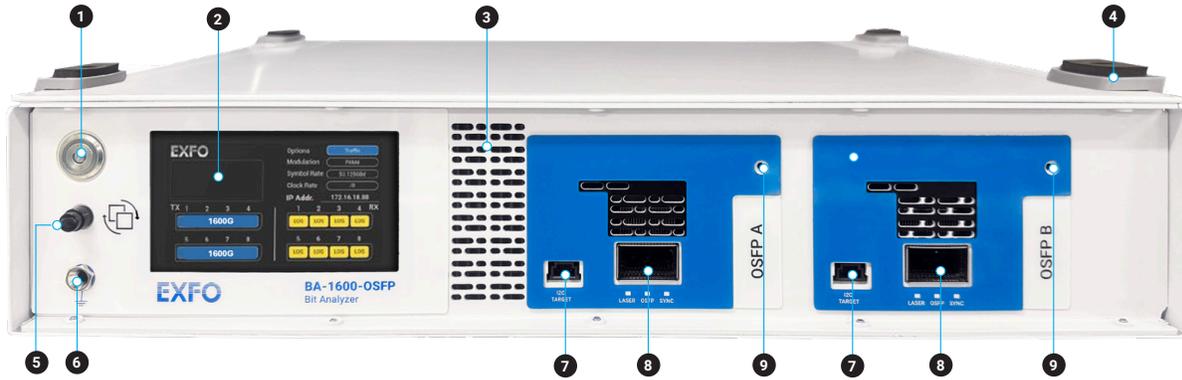
Number of Symbols	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
1	8	36425786	8	116207186	8	183442827	8	42395611
2	8	1120814	8	883496	8	706207	8	129256
3	8	5258	8	5271	8	3446	8	4478
4	8	3404	8	54	8	9	8	2064
5	8	1076	8	1	8	0	0	421
6	8	447	8	8	8	0	0	560
7	8	173	8	8	8	0	0	146
8	8	56	8	8	8	0	0	44
9	8	17	8	8	8	0	0	12
10	8	12	8	8	8	0	0	8
11	8	2	8	8	8	0	0	0
12	8	0	8	8	8	0	0	0
13	8	0	8	8	8	0	0	0
14	8	0	8	8	8	0	0	0
15	8	0	8	8	8	0	0	0



FEC symbol error distribution plot

DESIGNED FOR HIGH-SPEED AND MULTISERVICE

- 1 Power button
- 2 Display (4.5 inch)
- 3 Air inlet
- 4 Foot rest
- 5 Screen switch button
- 6 Grounding jack
- 7 I2C Target 3-pin connector
- 8 OSFP cage
- 9 Connection for external fan kit (optional)



SPECIFICATIONS

SPECIFICATIONS	
Number of ports	2
Data rate per lane (GBd)	106.25, 53.125 and 26.5625
Data rate adjustment (ppm)	±250
PAM4 coding	Gray code
Pattern supported by PPG and ED	PPG: PRBS 7Q/9Q/10Q/11Q/13Q/15Q/20Q/23Q/31Q/49Q/58Q/SSPRQ/SQUARE_WAVE ED: PRBS 7Q/9Q/10Q/11Q/13Q/15Q/20Q/23Q/31Q/49Q/58Q ^a
PG maximum amplitude (mV _{ppd})	900
J _{RMS} (mUI)	≤23 ^b
EOJ ₀₃ (mUI)	≤25 ^b
JH4u (mUI)	≤135 ^b
ED maximum level (mV _{ppd})	1200
ED damage level (mV _{ppd})	1300
TX multi tap pre-emphasis support	10 fix taps + 4 floating taps ^c
Connector type	OSFP (IHS) ^d

GENERAL SPECIFICATIONS	
Size (H × W × D)	105 mm × 465 mm × 350 mm (4.1 in × 18.3 in × 13.8 in)
Weight	≤ 5 kg (11 lb)
Temperature	Operating: 0 °C to 40 °C (32 °F to 104 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	≤95 % non-condensing
Power	100 VAC to 240 VAC (47 Hz to 63 Hz) 200W typical / 250W max

ACCESSORIES	
GP-3277	19" relay rack mounting bracket + screws/HW

a. Only 13Q, 20Q, 23Q, 31Q, 49Q, 58Q patterns are supported in RX at 106.25 GBaud.

b. Refer to 802.3dj Table 176D-2.

c. Max 14 UI away from fix taps.

d. Supports up to 33W module at 35°C ambient; 30W at 40°C ambient; without external fan kit.

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

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