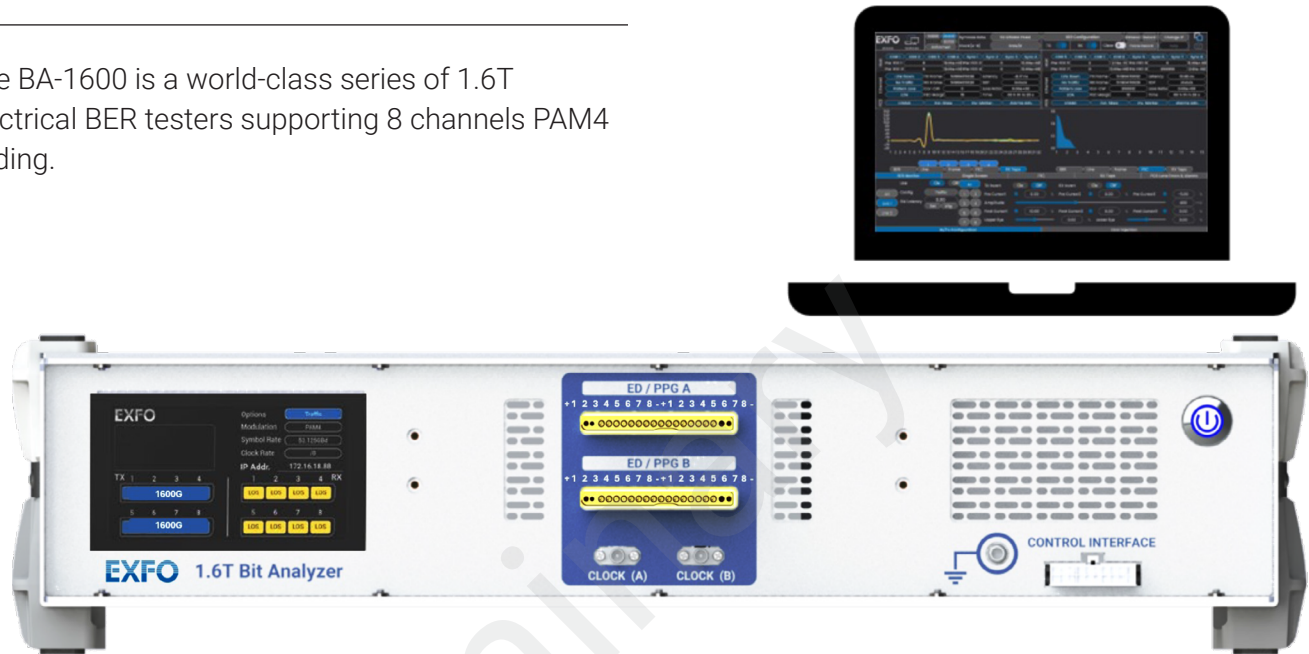


# BA-1600

## 1.6T BIT ANALYZER

- The BA-1600 is a world-class series of 1.6T electrical BER testers supporting 8 channels PAM4 coding.

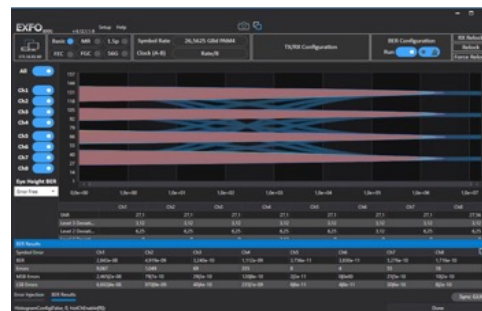
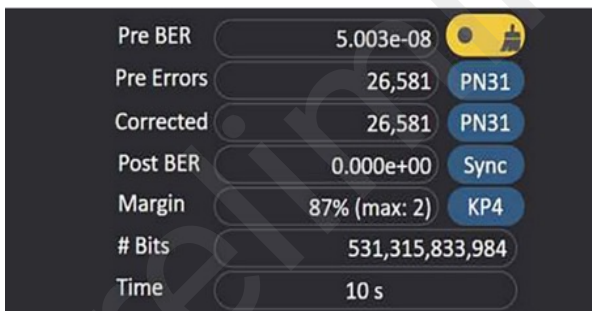


### KEY FEATURES

- High performance signal integrity and BER test function.
- Powerful and user-friendly graphical user interface (GUI)
- PAM4 support
- FEC generation and analysis
- Channel PAM4 Histogram
- Channel mapping
- I2C register read/write access
- Save and load functionality for all applicable parameters.
- Automation

## POWERFUL AND SIMPLIFIED USER INTERFACE

The BA-1600 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.



- Codeword error ratio
- Corrected codeword
- Uncorrected codeword
- FLR-64oct
- FEC margin
- Total codewords

WITH PAM4 CODING, A SIMPLE BER TEST IS NOT ENOUGH

Pre BER 5.003e-08

Pre Errors 26,581 PN31

Corrected 26,581 PN31

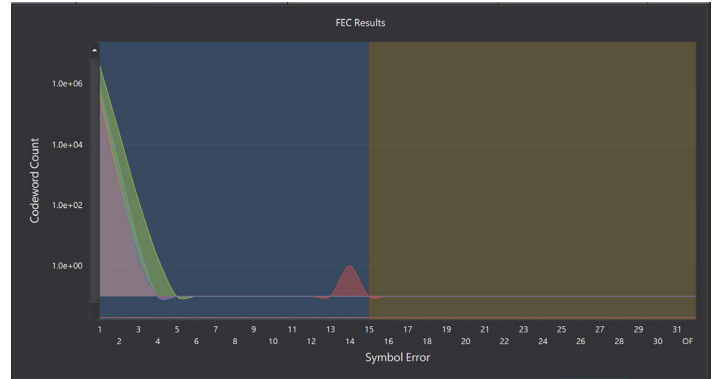
Post BER 0.000e+00 Sync

Margin 87% (max: 2) KP4

# Bits 531,315,833,984

Time 10 s

FEC symbol error margin



FEC symbol error distribution plot

EXFO v.6.7.13.0

Basic: MR 1.5p Symbol Rate: 25.06752 Gb/s PAM4

TX/RX Configuration BER Configuration

Ch1-Ch8 Eye Height BER

	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
SNR	27.1	26.69	27.56	26.69	0	0	0	0
Level 3 Deviat...	3.12	0	0	3.12	0	0	0	0
Level 2 Deviat...	6.25	0	0	6.25	0	0	0	0
Level 1 Deviat...	3.12	0	0	0	0	0	0	0
Level 0 Deviat...	0	0	0	0	0	0	0	0
Linear Scale	Eyeheight 2/3 %	0	0	37.5	0	0	0	0
	Eyeheight 1/2 %	53.12	0	50	0	0	0	0
Log Scale	Eyeheight 0/1 %	43.75	0	46.62	0	0	0	0

Ch Histogram

Channel histogram

EXFO v.6.5.12.8

Test Pattern: PN7Q, PN9Q, PN11Q, PN13Q, PN15Q, PN16Q, PN23Q, PN31Q, SSSPQ, FFFF000

Pre Cursor, Amplitude, Post Cursor, Upper Eye, Lower Eye

RX Polarity: Non-Inverted, Auto Lock

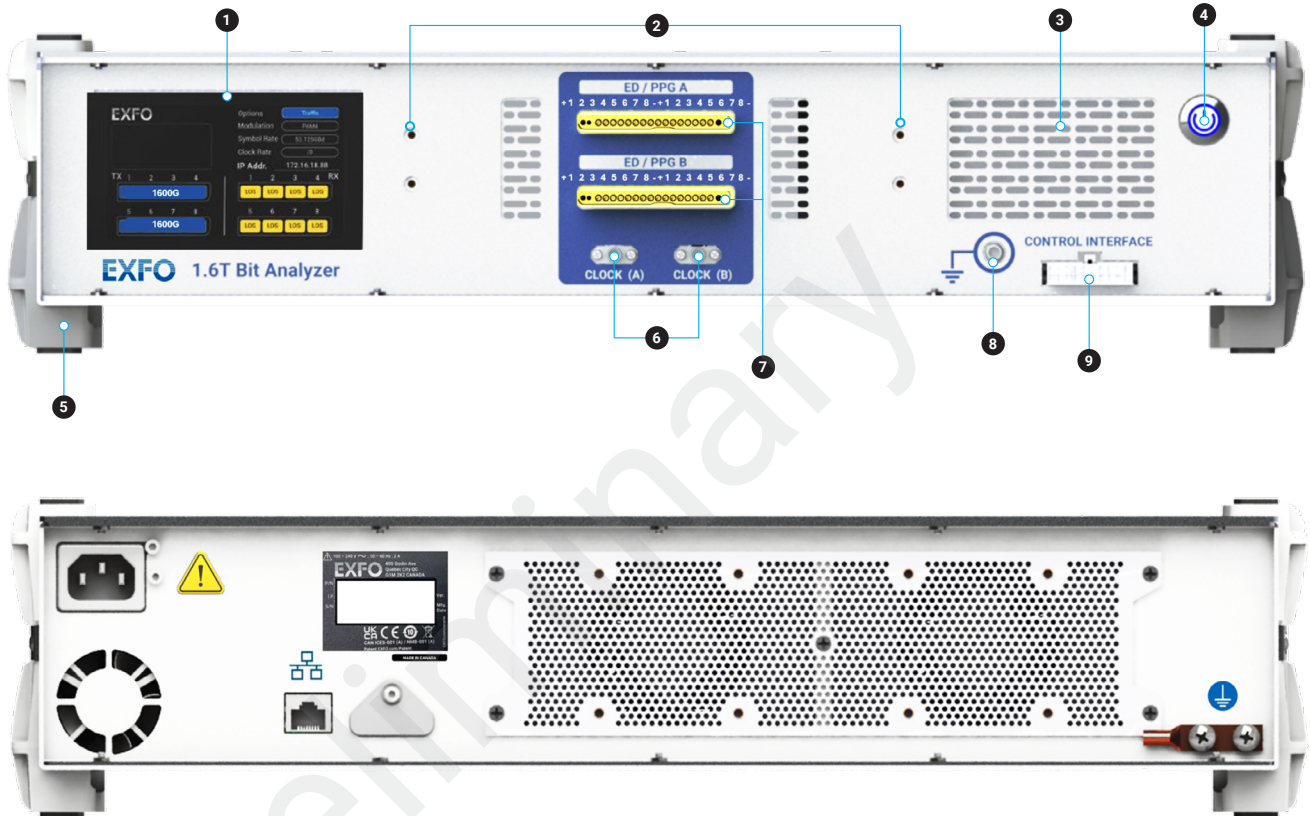
RX Optimization: Reflection, Interference, Level EQ

Cancel Done

10-tap mode

## DESIGNED FOR HIGH-SPEED AND MULTISERVICE

- 1 Display 4.5 in
- 2 MCB support bracket mount (optional)
- 3 Air inlet
- 4 Power button
- 5 Foot rest
- 6 Clock interfaces
- 7 RF user connectors (SMPX)
- 8 Ground jack
- 9 MCB interface connector



**SPECIFICATIONS****BA-1600**

Number of channels	8
Data rate per lane (GBd)	106.25, 53.125 and 26.5625 Gbaud/lane
Data rate adjustment (ppm)	±250
PAM4 coding	Gray code
Pattern supported by PPG and ED	PRBS 9, 11, 15, 23, 31 and SSPRQ. Future support PRBS 7, 58, Square Wave
Maximum amplitude (mV <sub>ppd</sub> )	900
Rise/fall time (20% to 80%) (ps)	(TBD)
PAM4 eye width (zero hit) (ps)	(TBD)
Jitter RMS (fs)	(TBD)
Sensitivity (mV <sub>ppd</sub> ) <sup>a</sup>	250
CTLE (dB)	(TBD)
ED damage level (mV <sub>ppd</sub> )	(TBD)
TX multi tap pre-emphasis support	10
RX equalization	Adaptable 16 taps FFE
Connector type	SMPX 1x16 from Rosenberger
TX adjustable differential amplitude	(TBD)

**MODULE COMPLIANCE BOARD (MCB) (OPTIONAL)**

Recommended MCB	Wilder OSFP-1.6T-TPA1.85-MCB-RC
Interface	OSFP1600 support
Power class	Class 4 and higher pluggable with cooling system
CMIS	CMIS control and I2C read / write



**GENERAL SPECIFICATIONS**

Size (H x W x D)	115 mm x 465 mm x 300 mm (4.5 in x 18.3 in x 11.8 in)
Weight	≤ 10 kg (22 lb)
Temperature	5 °C to 40 °C (41 °F to 104 °F)
Operating Storage	-20 °C to 70 °C (-4 °F to 158 °F)
Relative humidity	20% to 80%
Power	100 Vac to 240 Vac (47 Hz to 63 Hz) 60 W typical / 80 W max.

Preliminary

**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](http://www.EXFO.com/contact).

For the most recent patent marking information, please visit [www.EXFO.com/patent](http://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](http://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](http://www.EXFO.com/specs).

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