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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4861B

Skew Between Modules Typical: 50 ps after deskew Module Mass Net Typical: 2 kg including front-ends Programming Interface: GPIB IEEE 488.2 and LAN Numeric rows from Agilent ParBERT 81250 datasheet sections for E4861B. Do not pair with E4805B clock modules per OEM compatibility tables. Module Mass Net Typical: 2 kg including front-ends Programming Interface: GPIB IEEE 488.2 and LAN Numeric rows from Agilent ParBERT 81250 datasheet sections for E4861B. Do not pair with E4805B clock modules per OEM compatibility tables.



MODEL

**Agilent / Keysight
E4861B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4861B

LISTING

<https://aumictechlabs.com/products/e4861b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E4861B is a VXI plug-in base module for the ParBERT 81250 platform, enabling automated bit error ratio testing of high-speed digital communication systems from 21 Mb/s to 3.35 Gb/s. This single-slot module accepts two front-end cards - such as the E4862B generator or E4863B analyzer - to configure parallel or serial test channels with synchronized operation across up to 64 channels. The E4861B delivers low intrinsic jitter, supports differential and single-ended I/O, and accommodates memory-based patterns up to 16 Mbit per channel, making it suitable for characterization and validation in R&D and manufacturing environments targeting PCIe, SATA, and 10GbE standards. Technical Specifications Data Rate Range: 21 Mb/s to 3.35 Gb/s Maximum Clock Rate: 3.35 GHz (with E4808A or E4809A clock modules) Channel Count: Up to 64 synchronized channels (with appropriate front-end modules) Memory Depth: 16

Mbit per channel Pattern Types: PRBS up to $2^{31}-1$, Pseudo Random Word Sequences (PRWS), memory-based patterns Transition Time (20%-80%): 75 ps typical Input Sensitivity: Less than 50 mV Jitter Injection: 500 ps delay line

Key Features Modular architecture accommodates two front-end plug-in cards for flexible test configurations Differential and single-ended data I/O for signal conditioning across varied implementations Low intrinsic jitter with controllable jitter injection for signal integrity testing VXI form factor provides integration with standard modular instrument chassis

Typical Applications High-speed digital communication device validation, serial protocol characterization, parallel bit pattern testing, and manufacturing test environments requiring multi-channel synchronized operation at data rates up to 3.35 Gb/s.

Compatibility & Integration Designed for the ParBERT 81250 platform and operates with Keysight 81250 ParBERT Measurement Software. Compatible with E4862B (3.35 Gb/s generator frontend) and E4863B (3.35 Gb/s analyzer frontend) modules. Requires E4808A or E4809A clock modules for maximum performance.

E4861B Characteristics / Specifications

PARAMETER	VALUE
Model	E4861B
Instrument Type	ParBERT 81250 3.35 Gb/s data module
Card Format	VXI C-size 1 slot
Front End Slots	2
Clock Data Rate Range	20.834 MHz to 3.350 GHz
Memory Depth Per Channel	16 Mbit
PRBS PRWS Polynomials	2^n-1 n equals 7 9 10 11 15 23 31
Mark Density Settings	1/8 1/4 1/2 3/4 7/8 fornequals 7 9 10 11 15
Detect Word Length	48 bits
Start Delay Range	0 to 200 ns
Fine Delay Range	plus or minus 1 period
Delay Resolution	1 ps
Generator Timing Accuracy Data Mode	plus or minus 25 ps plus or minus 50 ppm after autocal
Analyzer Sampling Rate	20.834 MHz to 3.350 GHz
Analyzer Timing Accuracy	plus or minus 25 ps plus or minus 50 ppm after autocal
Max Memory At 128 Bit Segment Resolution	16777216 bits
Compatible Clock Modules	E4808A E4809A
Channels Per Module	up to 2
Channels Per Frame Class	up to 22 at 3.35 Gb/s
Skew Between Modules Typical	50 ps after deskew
Module Mass Net Typical	2 kg including front-ends
Programming Interface	GPIB IEEE 488.2 and LAN
BER Threshold Range	1e-4 to 1e-9
Data Rate	Range: 20.834 MHz to 3.350 GHz

E4861B Specifications

PARAMETER	VALUE
Keysight E4861B ParBERT 3.35 Gb/s Data Module	Overview
Applications	PCIe SATA 10GbE class multi-serial BER, Mux/Demux characterization, and jitter-injection stimulus with E4862B delay-control inputs.
Sixteen Mbit pattern memory depth per channel	Hardware PRBS polynomials through 2^31-1
Technical Specifications	Model: E4861B
Notes	Numeric rows from Agilent ParBERT 81250 datasheet sections for E4861B. Do not pair with E4805B clock modules per OEM compatibility tables.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.