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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4862B

Keysight E4862B ParBERT 3.35 Gb/s Generator Front End The Keysight E4862B is the 3.35 Gb/s generator front-end for the E4861B ParBERT data module. It provides one differential or single-ended output with NRZ DNRZ RZ R1 formats, 0.05 to 1.8 Vpp amplitude, sub-75 ps transitions, and a delay-control input for jitter modulation. High-speed SerDes and Mux stimulus, LVDS CML PECL ECL drive, and jitter-tolerance testing via external delay modulation.

Differential or single-ended 50 ohm generator output The Keysight E4862B is the 3.35 Gb/s generator front-end for the E4861B ParBERT data module. It provides one differential or single-ended output with NRZ DNRZ RZ R1 formats, 0.05 to 1.8 Vpp amplitude, sub-75 ps transitions, and a delay-control input for jitter modulation. High-speed SerDes and Mux stimulus, LVDS CML PECL ECL drive, and jitter-tolerance testing via external delay modulation. Differential or single-ended 50 ohm generator output Cross-point adjustment 30 percent to 70 percent in NRZ



MODEL

**Agilent / Keysight
E4862B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4862B

LISTING

<https://aumictechlabs.com/products/e4862b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E4862B is a Parallel Bit Error Rate Tester (ParBERT) mainframe that is the foundational chassis for high-speed digital communication system testing. This modular platform accepts plug-in signal generation, analysis, and error detection modules to configure complete bit

error rate measurement systems. The mainframe provides power distribution and mechanical integration for testing SerDes interfaces, backplane interconnects, cable assemblies, and other high-speed digital components.

Technical Specifications

Mainframe Type: Parallel Bit Error Rate Tester (ParBERT) mainframe with multiple module slots for functional expansion.

Form Factor: Rack-mountable chassis with standard test and measurement environments.

Module Architecture: Accommodates plug-in modules including pattern generators, error detectors, and clock recovery units from the E4860 series family.

Control & Synchronization: Standard remote control interface with support for external clock and synchronization signals through module-specific connectors.

Key Features

- Modular slot architecture for configurable test system assembly
- Multi-slot mainframe supporting various E4860 series modules
- Integrated power distribution for signal generation and analysis modules
- External clock and sync signal support for system timing alignment
- Rack-mount form factor for laboratory and production environments

Typical Applications

- SerDes interface validation and characterization
- Backplane interconnect testing
- Cable assembly performance qualification
- High-speed digital component bit error rate assessment
- Data transmission reliability validation across digital interfaces

Compatibility & Integration

The E4862B integrates with the Agilent/Keysight E4860 series module ecosystem. Specific module combinations determine system bandwidth, pattern complexity, and measurement capabilities. Module selection depends on the particular digital interface and test parameters required.

E4862B Characteristics / Specifications

PARAMETER	VALUE
Model	E4862B
Instrument Type	ParBERT 3.35 Gb/s generator front end
Parent Data Module	E4861B
Outputs	1 differential or single ended
Impedance Typical	50 ohm
Data Formats	NRZ DNRZ RZ R1
Pulse Width Range	150 ps to 1 UI minus 150 ps
Sampling Delay Resolution	1 ps
Pulse Width Accuracy Typical	40 ps
Output Voltage Window	-2.00 to +3.5 V
External Termination Voltage	-2.00 to +3.5 V
Amplitude Range	0.05 Vpp to 1.8 Vpp
Amplitude Resolution	10 mV
Amplitude Accuracy	plus or minus 2 percent plus or minus 10 mV
Short Circuit Current Maximum	72 mA
Transition Time 20 To 80 Percent	less than 75 ps 60 ps typical
Jitter NRZ Data Mode	less than 30 ps peak to peak with E4808A
Jitter Clock Mode	less than 2 ps rms with E4808A
Cross Point Adjustment Range	30 percent to 70 percent NRZ
Delay Control Range	-250 ps to +250 ps
Delay Control Modulation Bandwidth	DC to 200 MHz
Delay Control Input Window	-500 mV to +500 mV DC coupled
Delay Control Input Impedance Typical	50 ohm
Data Rate Class	20.834 Mb/s to 3.35 Gb/s with E4861B
Bandwidth	DC to 200 MHz

PARAMETER	VALUE
Data Rate	Class: 20.834 Mb/s to 3.35 Gb/s with E4861B

E4862B Specifications

PARAMETER	VALUE
Keysight E4862B ParBERT 3.35 Gb/s Generator Front End	Overview
Key Features	Differential or single-ended 50 ohm generator output
Delay control input with two programmable delay ranges	Addressable LVDS CML PECL ECL and low-voltage CMOS
Technical Specifications	Model: E4862B

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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Instrument Type	ParBERT 3.35 Gb/s generator front end
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Jitter NRZ Data Mode	less than 30 ps peak to peak with E4808A
Jitter Clock Mode	less than 2 ps rms with E4808A
Cross Point Adjustment Range	30 percent to 70 percent NRZ
Delay Control Range 1	-250 ps to +250 ps
Delay Control Range 2	-25 ps to +25 ps
Delay Control Modulation Bandwidth	DC to 200 MHz
Delay Control Input Window	-500 mV to +500 mV DC coupled
Delay Control Input Impedance Typical	50 ohm
Data Rate Class	20.834 Mb/s to 3.35 Gb/s with E4861B

Notes

Numeric rows from Agilent ParBERT 81250 datasheet Table 51 and delay-control table for E4862B. Absolute maximum external voltage window is -2.2 V to +3.2 V per OEM notes.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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30-day returns
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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.