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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4866A

Keysight E4866A ParBERT 10.8 Gb/s Generator Module The Keysight E4866A isaParBERT 81250 10.8 Gb/s generator module providing complementary data and clock outputs for serial Mux/Demux and high-speed BER stimulus, typically paired with an N4868A booster and E4808A clock. OC-192 class Mux/Demux serial-side stimulus, 10 GbE related characterization, and multi-module ParBERT generator groups at 9.5 to 10.8 Gb/s. Works with N4868A booster for amplitude expansion The Keysight E4866A isaParBERT 81250 10.8 Gb/s generator module providing complementary data and clock outputs for serial Mux/Demux and high-speed BER stimulus, typically paired with an N4868A booster and E4808A clock. OC-192 class Mux/Demux serial-side stimulus, 10 GbE related characterization, and multi-module ParBERT generator groups at 9.5 to 10.8 Gb/s. Works with N4868A booster for amplitude expansion

Instrument Type: ParBERT 10.8 Gb/s generator module



MODEL

**Agilent / Keysight
E4866A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4866A

LISTING

<https://aumictechlabs.com/products/e4866a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E4866A is a serial BERT module for the ParBERT 81250 system, designed to generate and analyze differential or single-ended signals at data rates from 9.5 to 10.8 Gbit/s. This VXI slot-wide module provides signal generation and analysis capabilities for high-speed serial interface testing and characterization across 10 Gigabit Ethernet, OC-192, and OC-768

applications. Technical Specifications -# Generator Module (with N4868A Booster) Data rate range: 9.5 to 10.8 Gbit/s Output amplitude: 0.1 to 1.8 V Transition time (20%-80%): <20 ps typical 15 ps Jitter: <25 ps peak-to-peak typical 20 ps peak-to-peak -# Analyzer Module Data rate range: 9.5 to 10.8 Gbit/s Minimum detectable pulse width: 80 ps typical at ECL levels Continuous clock recovery: 40 ps at ECL levels Phase margin: <1 unit interval -25 ps Key Features VXI slot-wide form factor for ParBERT 81250 integration Differential and single-ended signal support Sub-20 ps transition times for accurate edge characterization Low jitter generation and analysis ECL-level detection and clock recovery Typical Applications 10-Gigabit Ethernet at 10.3 Gbit/s and 9.953 Gbit/s OC-768/STM-256 parallel side testing (4×10.8 Gbit/s) OC-192/STM-64 parallel side (1×10.8 Gbit/s) and serial side (16×675 Mbit/s) Multi-device concurrent manufacturing test Compatibility & Integration The E4866A integrates into the ParBERT 81250 system as a dedicated serial BERT module. Generator operation requires the N4868A booster module. The module supports both single-ended and differential signal modes, enabling flexible test configurations for modern telecommunications and data center applications.

E4866A Characteristics / Specifications

PARAMETER	VALUE
Model	E4866A
Instrument Type	ParBERT 10.8 Gb/s generator module
Data Rate Range	9.5 Gb/s to 10.8 Gb/s
Clock Range	9.5 GHz to 10.8 GHz
Delay Range	0 to 300 ns
Delay Resolution	1 ps
Timing Accuracy	plus or minus 20 ps plus or minus 50 ppm
Skew Between Modules Typical	50 ps after deskew
Segment Length Resolution	256 bits
Memory Depth	up to 32 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 for nequals 7 9 10 11 15
Data Output With Booster Amplitude	0.3 V to 1.8 V at 10 mV resolution
Booster Extended Amplitude Class	1.0 V to 2.5 V
Transition Time Generator Path	less than 60 ps 20 to 80 percent
Transition Time Boosted Path Typical	less than 20 ps 15 ps typical
Jitter Peak To Peak	less than 25 ps 20 ps typical
Clock Output Amplitude Typical	0.5 Vpp fixed
Clock Jitter	less than 2 ps RMS
Compatible Clock Module	E4808A
Card Width Class	VXI generator module
Booster Companion	N4868A
Cable Kit Differential Class	N4869A
Module Role	dedicated 10.8 Gb/s generator
Data Rate	Range: 9.5 Gb/s to 10.8 Gb/s

E4866A Specifications

PARAMETER	VALUE
Keysight E4866A ParBERT 10.8 Gb/s Generator Module	Overview
Key Features	9.5 to 10.8 Gb/s generator data module
Up to 32 Mbit memory based patterns	PRBS/PRWS polynomials through 2^31-1
Works with N4868A booster for amplitude expansion	Requires E4808A central clock module
Technical Specifications	Model: E4866A
Notes	Numeric rows from Agilent ParBERT 81250 datasheet E4866A/N4868A sections.

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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Module Role	dedicated 10.8 Gb/s generator
Notes	
Numeric rows from Agilent ParBERT 81250 datasheet E4866A/N4868A sections.	

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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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.