

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4869A

Keysight E4869A Serial BERT Pattern Generator Module Class The Agilent/HP E4869A is a serial BERT family pattern-generator class module used in ParBERT/serial BERT systems for high-speed digital stimulus. OEM ParBERT accessory tables list the E4869A among generator and analyzer building blocks for multi-channel bit error ratio testing. Multi-channel serial BERT stimulus, backplane and SERDES characterization, and automated BER sweeps in ParBERT mainframes. VXI or modular BERT mainframe residency class The Agilent/HP E4869A is a serial BERT family pattern-generator class module used in ParBERT/serial BERT systems for high-speed digital stimulus. OEM ParBERT accessory tables list the E4869A among generator and analyzer building blocks for multi-channel bit error ratio testing. Multi-channel serial BERT stimulus, backplane and SERDES characterization, and automated BER sweeps in ParBERT mainframes. VXI or modular BERT mainframe residency class Instrument Type: serial BERT pattern generator module

**MODEL****Agilent / Keysight
E4869A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****E4869A****LISTING**<https://aumictechlabs.com/products/e4869a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E4869A is a 3-slot VXI demultiplexer module designed for high-speed serial data analysis within the ParBERT 81250 43G bit error ratio testing system. It demultiplexes serial data streams up to 43.2 Gb/s into 16 parallel differential channels operating at 2.7 Gb/s each,

enabling comprehensive characterization of transceivers, SerDes devices, and multiplexer/demultiplexer circuits. The module supports OC-768 and SFI-5 interface testing with configurable 4:1, 16:1, and 1:16 multiplexing ratios.

Technical Specifications

Data Rate: Serial input up to 43.2 Gb/s; parallel outputs up to 16 differential channels at 2.7 Gb/s each

Module Type: DeMUX (demultiplexer), 3-slot VXI form factor

Parallel Data Interface: 16 differential data outputs (D0–D15) via 32 cables

Output Amplitude: Approximately 0.5 V differential

Signal Format: NRZ (Non-Return-to-Zero)

Clock Distribution: Sub-rate clocks at 1/2, 1/4, 1/16, or 1/64 of master period; external clock sources up to 20 GHz, 26 GHz, or 50 GHz recommended

Pattern Generation: PRBS and memory-based pattern support

FEC Testing: Supports Forward Error Correction device analysis at 43.01841 Gb/s with 255/236 overhead rates

Key Features

- Bit Error Ratio (BER) testing on demultiplexed serial interfaces
- Analysis of user-defined patterns and PRBS/PRWS sequences
- OC-768 16:1 and 4:1 mux/demux test capability
- SFI-5 interface support up to 1:16 multiplexer and demultiplexer analysis
- Operates as integral module within ParBERT 81250 43G modular BERT system

Typical Applications

- High-speed transceiver and SerDes characterization
- OC-768 optical interface testing
- SFI-5 framer-to-SerDes link validation
- Forward Error Correction device performance evaluation
- Serial-to-parallel data stream decomposition for detailed signal analysis

Compatibility & Integration

System Integration: Agilent ParBERT 81250 43G Mainframe

Configuration: Two VXI mainframes typically required for 40 Gb/s testing; one mainframe accommodates up to 16 channels at 2.7 Gb/s plus 43.2 Gb/s mux/demux module

Software Platform: MS Windows NT 4.0 or Windows 2000 via external PC

Interface: IEEE 1394 PC link to VXI with plug-and-play drivers

E4869A Characteristics / Specifications

PARAMETER	VALUE
Model	E4869A
Instrument Type	serial BERT pattern generator module
Series Family	Agilent ParBERT E48xx
Primary Function	pattern generation stimulus
Companion Family Modules	E4861 E4862 E4866 analyzer and generator peers
Bit Rate Class	multi Gb/s class per installed ParBERT configuration
Channel Count Class	configuration dependent generator channels
Pattern Types Class	PRBS and user patterns
Interface Role	stimulus source for BER testing
Mainframe Class	ParBERT modular mainframe
Control Interface Class	system software and remote SCPI class
Output Amplitude Class	programmable differential single ended class
Jitter Injection Class	system option dependent
Clocking Class	recovered or external reference class
Form Factor Class	modular plug in generator
Operating Temperature Class	0 C to 40 C laboratory class
Storage Temperature Class	minus 40 C to 70 C class
Power Source	mainframe supplied
Calibration Interval Class	annual class BERT practice
Error Detector Peer	matched E48xx analyzer modules
Triggering Class	system trigger bus
Memory Depth Class	pattern memory configuration dependent
Data Coding Class	NRZ class serial links
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 40 C laboratory class

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 40 C laboratory class
Operating Temperature	Class: 0 C to 40 C laboratory class
Operating Temperature Class	0 C to 40 C laboratory class
Storage Temperature Class	minus 40 C to 70 C class
Power Source	mainframe supplied
Calibration Interval Class	annual class BERT practice
Error Detector Peer	matched E48xx analyzer modules
Triggering Class	system trigger bus
Memory Depth Class	pattern memory configuration dependent
Data Coding Class	NRZ class serial links Notes Capability rows from Agilent ParBERT/E48xx family literature placing E4869A asapattern generator module. Exact bit rate and amplitude limits are defined by the installed generator hardware revision and mainframe options.

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	
Specifications	
PARAMETER	VALUE
Model	E4869A
Instrument Type	serial BERT pattern generator module
Series Family	Agilent ParBERT E48xx
Primary Function	pattern generation stimulus
Companion Family Modules	E4861 E4862 E4866 analyzer and generator peers
Bit Rate Class	multi Gb/s class per installed ParBERT configuration
Channel Count Class	configuration dependent generator channels
Pattern Types Class	PRBS and user patterns
Interface Role	stimulus source for BER testing
Mainframe Class	ParBERT modular mainframe
Control Interface Class	system software and remote SCPI class
Output Amplitude Class	programmable differential single ended class
Jitter Injection Class	system option dependent
Clocking Class	recovered or external reference class
Form Factor Class	modular plug in generator
Operating Temperature Class	0 C to 40 C laboratory class
Storage Temperature Class	minus 40 C to 70 C class
Power Source	mainframe supplied
Calibration Interval Class	annual class BERT practice
Error Detector Peer	matched E48xx analyzer modules
Triggering Class	system trigger bus
Memory Depth Class	pattern memory configuration dependent
Data Coding Class	NRZ class serial links
Notes	
Capability rows from Agilent ParBERT/E48xx family literature placing E4869A asapattern generator module.	

Exact bit rate and amplitude limits are defined by the installed generator hardware revision and mainframe options.

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>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

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