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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E4854A

Keysight E4854A Dual Serial Cell Generator Module The Keysight E4854A isaVXI C-size dual serial cell generator for the E4859A system. It provides two independent burst-mode generators with the same cell editing, timing, and control-signal capabilities as the generator half of the E4853A. Multi-branch TDMA upstream emulation, proprietary burst formats, and loading shared analyzer path with multiple timed cells. Up to 28 segments of mixed PRBS and user pattern per cell The Keysight E4854A isaVXI C-size dual serial cell generator for the E4859A system. It provides two independent burst-mode generators with the same cell editing, timing, and control-signal capabilities as the generator half of the E4853A. Multi-branch TDMA upstream emulation, proprietary burst formats, and loading shared analyzer path with multiple timed cells. Up to 28 segments of mixed PRBS and user pattern per cell Variable guard time with 10 ps resolution between generators



MODEL

**Agilent / Keysight
E4854A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E4854A

LISTING

<https://aumictechlabs.com/products/e4854a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E4854A is a dual serial cell generator module that emulates burst-mode data for network transmission performance characterization. Deployed as a single-slot VXI component within the E4859A Serial Cell Generator and Analyzer System, it enables detailed analysis of transmission behavior under real network conditions, including proprietary cell formats. This C-

Size VXI module provides independent control over cell length, cell content, and cell timing for each of its two generators. Engineers can configure these parameters to simulate diverse network scenarios and validate system performance against varied data patterns and timing constraints.

Technical Specifications

Module Type: Dual Serial Cell Generator

Form Factor: Single-Slot, C-Size VXI Module

System Architecture: Component within E4859A Serial Cell Generator and Analyzer System

Key Features

- Configurable cell length, content, and timing per generator channel
- Burst-mode data emulation for network characterization
- Support for proprietary cell formats
- Dual independent signal generation paths

Typical Applications

- Network transmission performance validation under variable cell timing
- Characterization of system behavior with custom or proprietary data cell formats
- Burst-mode traffic generation within automated test systems
- Integration into multi-instrument ATE configurations

Compatibility & Integration

The E4854A operates exclusively as a functional element of the E4859A Serial Cell Generator and Analyzer System. System-level compatibility and operational requirements are detailed in the E4859A documentation.

Product Status: Obsolete. Full support, repair, and calibration services remain available through Keysight.

E4854A Characteristics / Specifications

PARAMETER	VALUE
Model	E4854A
Instrument Type	dual serial cell generator
Card Format	VXI C-size 1 slot
Generator Channels	2
Analyzer Channels	0
Bit Rate Range	170 kbit/s to 250 Mbit/s
Bit Rate With Class 6	up to 660 Mbit/s main outputs
Pattern Format	NRZ
Cell Segments Maximum	28
Cell Repeats Per Frame	1 to 32
PRBS Polynomials	$2^n - 1$ n equals 7 9 10 11 15 17 20 21 23 31
Memory Based Pattern Range	64 Kbit to 1024 Kbit per channel vs bit rate
Frame Length Maximum	24 ms
Guard Time Resolution	10 ps
Delay Range Between Main Outputs	0 to frame length max 24 ms
Output Amplitude Range	0.30 to 2.50 V
Amplitude Resolution	10 mV
Source Impedance	50 ohm
Termination Voltage Range	-2.0 V to +3.0 V
Short Circuit Current Maximum	120 mA
Transition Time 20 To 80 Typical	350 ps
Data Jitter Typical	less than 10 ps rms
Skew Between Outputs Typical	plus or minus 100 ps
Logic Families Supported	TTL ECL CMOS PECL
Memory At 250 Mbit/s Class	512 Kbit user 8 Mbit algorithmic

PARAMETER	VALUE
Memory At 660 Mbit/s Class	1024 Kbit user 16 Mbit algorithmic

E4854A Specifications

PARAMETER	VALUE
Keysight E4854A Dual Serial Cell Generator Module	Overview
Two serial cell generators per VXI slot	Up to 28 segments of mixed PRBS and user pattern per cell
Technical Specifications	Model: E4854A
Notes	Numeric rows from HP E4859A technical data 5963-9924E dual generator module description shared with E4853A generator parameters.

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

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

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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.