

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E8311A Pulse Pattern Generator, 165 MHz VXI C-1

Agilent Keysight E8311A 165 MHz VXI Pulse Pattern Generator The Agilent E8311A isaVXI C-size pulse/pattern generator. OEM Agilent VXI PPG literature lists 165 MHz maximum clock, VXI C-1 form factor, and programmable pulse/pattern outputs for digital stimulus in modular VXIbus systems. Automated digital stimulus, timing edge generation, and pattern output in VXI ATE racks. Instrument Type: VXI pulse pattern generator The Agilent E8311A isaVXI C-size pulse/pattern generator. OEM Agilent VXI PPG literature lists 165 MHz maximum clock, VXI C-1 form factor, and programmable pulse/pattern outputs for digital stimulus in modular VXIbus systems. Automated digital stimulus, timing edge generation, and pattern output in VXI ATE racks. Instrument Type: VXI pulse pattern generator Logic Levels: TTL CMOS class programmable



MODEL

**Agilent / Keysight
E8311A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E8311A

LISTING

<https://aumictechlabs.com/products/e8311a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E8311A is a VXI C-size, 1-slot, register-based pulse pattern generator delivering 165 MHz maximum frequency across two independent output channels. This module generates high-speed digital signals with precise timing control and versatile trigger modes, making it ideal for functional verification of high-speed digital and mixed-signal devices, clock

generation in automated test systems, radar testing, serial bus testing, and flash memory testing.

Technical Specifications

Frequency & Timing Frequency range: 1 MHz to 165 MHz Timing resolution: 3.5 digits, 5 ps best case Minimum pulse width: 1.5 ns (external width mode) Transition times: 2 ns to 200 ms variable

Pattern & Output Formats Pattern length: 16 Kbit per channel Output formats: RZ, NRZ, DNRZ Random patterns: PRBS 2^{n-1} (n = 7 to 14) Output amplitude: 10 V into 50 Ω load Output impedance: 50 Ω typical

Trigger Specifications Input impedance: 50 Ω / 10 k Ω selectable Trigger input threshold: -10 V to +10 V Maximum external input voltage: ± 15 Vp-p Trigger input sensitivity: ≤ 300 mVp-p typical External trigger transition time: <100 ns

Key Features

Dual output channels can operate independently or combine to form multi-level waveforms Six trigger modes: Continuous, External Triggered, External Gated, External Width, Manual, and Internal Triggered Fixed trigger-in to signal-out delay for stable synchronization Variable delay ranges for precise timing alignment Synchronously triggerable internal oscillator and stable internal PLL External frequency reference input supported TTL/ECL Trigger Bus on VXI backplane

Typical Applications Functional verification of high-speed digital circuits Mixed-signal device testing Automated test system clock generation Radar signal testing Serial bus protocol testing Flash memory functional testing

Compatibility & Integration Functionally compatible with the Agilent/Keysight 81110A, enabling straightforward migration of test routines from laboratory to production environments. Integrates into VXI test systems via VXIplug&play software drivers. SMA (f) 3.5 mm connectors for output channels; P1/P2 connectors for VXI bus.

E8311A Characteristics / Specifications

PARAMETER	VALUE
Model	E8311A
Instrument Type	VXI pulse pattern generator
Maximum Clock Rate	165 MHz
Form Factor	VXICsize 1 slot
Bus Standard	VXIbus
Output Modes	pulse and pattern
Series Family	Agilent E831x VXI PPG
Related Model	E8312A 330 MHz
Operating Temperature Class	0 C to 55 C
Power	VXI backplane supplies
Triggering	VXI TTLTRG class
Programming	SCPI over VXI
Manufacturer	Agilent / Keysight
Use Case	digital ATE stimulus
Edge Control	programmable width delay
Logic Levels	TTL CMOS class programmable
Memory Depth Class	pattern memory onboard
Slot Count	1
Cooling	VXI chassis airflow
Storage Temperature Class	minus 40 C to 70 C class
Front Panel	output SMB or SMB-like coax
Calibration	verify timing with counter
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 55 C

E8311A Specifications

PARAMETER	VALUE
Applications	Automated digital stimulus, timing edge generation, and pattern output in VXI ATE racks.
Key Features	165 MHz maximum clock
Technical Specifications	Model: E8311A
Notes	165 MHz and VXI C-1 identity from Agilent/Keysight E8311A product listings.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 55 C
Operating Temperature	Class: 0 C to 55 C
Operating Temperature Class	0 C to 55 C
Power	VXI backplane supplies
Triggering	VXI TTLTRG class
Programming	SCPI over VXI
Manufacturer	Agilent / Keysight
Use Case	digital ATE stimulus
Edge Control	programmable width delay
Logic Levels	TTL CMOS class programmable
Memory Depth Class	pattern memory onboard
Slot Count	1
Cooling	VXI chassis airflow
Storage Temperature Class	minus 40 C to 70 C class
Front Panel	output SMB or SMB-like coax
Calibration	verify timing with counter Notes 165 MHz and VXI C-1 identity from Agilent/Keysight E8311A product listings.

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	E8311A
Instrument Type	VXI pulse pattern generator
Maximum Clock Rate	165 MHz
Form Factor	VXICsize 1 slot
Bus Standard	VXIbus
Output Modes	pulse and pattern
Series Family	Agilent E831x VXI PPG
Related Model	E8312A 330 MHz
Operating Temperature Class	0 C to 55 C
Power	VXI backplane supplies
Triggering	VXI TTLTRG class
Programming	SCPI over VXI
Manufacturer	Agilent / Keysight
Use Case	digital ATE stimulus
Edge Control	programmable width delay
Logic Levels	TTL CMOS class programmable
Memory Depth Class	pattern memory onboard
Slot Count	1
Cooling	VXI chassis airflow
Storage Temperature Class	minus 40 C to 70 C class
Front Panel	output SMB or SMB-like coax
Calibration	verify timing with counter
Notes	
165 MHz and VXI C-1 identity from Agilent/Keysight E8311A product listings.	

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.