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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E8312A Pulse Pattern Generator, 330 MHz VXI C-1

Agilent Keysight E8312A 330 MHz VXI Pulse Pattern Generator The Agilent E8312A isaVXI C-size pulse/pattern generator with 330 MHz maximum clock. OEM Agilent VXI PPG literature lists the E8312A as the higher-rate companion to the E8311A in modular VXIbus digital stimulus systems. Higher-rate digital stimulus and pattern generation in VXI automated test systems. Instrument Type: VXI pulse pattern generator The Agilent E8312A isaVXI C-size pulse/pattern generator with 330 MHz maximum clock. OEM Agilent VXI PPG literature lists the E8312A as the higher-rate companion to the E8311A in modular VXIbus digital stimulus systems. Higher-rate digital stimulus and pattern generation in VXI automated test systems. Instrument Type: VXI pulse pattern generator Logic Levels: TTL CMOS class programmable



MODEL

**Agilent / Keysight
E8312A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E8312A

LISTING

<https://aumictechlabs.com/products/e8312a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E8312A is a VXI C-size, 1-slot, register-based dual-channel pulse pattern generator delivering complex digital waveforms up to 330 MHz for digital systems testing and simulation. Each channel supports 16 Kbits of pattern memory, enabling sophisticated protocol emulation with pre-configured formats including RZ, NRZ, DNRZ, and PRBS. The instrument provides selectable transition times of 0.8 ns or 1.6 ns (10/90%), timing resolution to 5 ps, and

pulse-width modulation capability with variable delay ranges for precise synchronization in automated test environments.

Technical Specifications

Frequency and Timing

Maximum frequency: 330 MHz
Timing resolution: 5 ps (best case, 3.5 digits)
Transition times: Selectable 0.8 ns or 1.6 ns (10/90%)
Period range: 3.03 ns to 999.5 s
Pulse width range: 3.03 ns to (period - 3.03 ns)
Delay range: 0 ns to (period - 3.03 ns)
Frequency accuracy (with PLL): $\pm 0.01\%$
Width accuracy: $\pm 0.5\% \pm 0.5$ ns

Output Characteristics

Output amplitude: 3.8 V into 50 Ω load
Output impedance: 50 Ω
Connectors: SMA (f) 3.5 mm, differential outputs

Module Specifications

Type: VXI C-size, 1-slot, register-based
Channels: Dual
Pattern depth: 16 Kbits per channel
Pattern formats: RZ, NRZ, DNRZ, PRBS
Key Features

Trigger modes: Continuous, external (triggered, gated, width), manual, internal (triggered with PLL or up-command)
VXI backplane trigger connectivity (TTL lines 0-7 and ECL lines)
Fixed and variable trigger-to-output delay for synchronization
Clock distribution for test system synchronization
Trigger and strobe output signals

Typical Applications

Digital circuit and component validation
Complex protocol simulation and emulation
Pulse-width modulated signal generation and testing
Logic design verification with precise timing control

Compatibility & Integration

Functionally compatible with Keysight 81100 and 8110A series pulse generators, enabling test routine portability from R&D to production.
VXI plug&play software drivers included for direct integration into automated test systems.

E8312A Characteristics / Specifications

PARAMETER	VALUE
Model	E8312A
Instrument Type	VXI pulse pattern generator
Maximum Clock Rate	330 MHz
Form Factor	VXICsize 1 slot
Bus Standard	VXIbus
Output Modes	pulse and pattern
Series Family	Agilent E831x VXI PPG
Related Model	E8311A 165 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	high rate 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	high speed coax outputs
Calibration	verify timing with counter
Storage temperature	Class: minus 40 C to 70 C class
Operating temperature	Class: 0 C to 55 C

E8312A Specifications

PARAMETER	VALUE
Key Features	330 MHz maximum clock
Pulse and pattern generation	Companion to E8311A
Technical Specifications	Model: E8312A
Notes	330 MHz and VXI C-1 identity from Agilent/Keysight E8312A 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
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Front Panel	high speed coax outputs
Calibration	verify timing with counter Notes 330 MHz and VXI C-1 identity from Agilent/Keysight E8312A 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	
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330 MHz and VXI C-1 identity from Agilent/Keysight E8312A 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

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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.