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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) 8111A 165 MHz Output Module

Keysight / Agilent 8111A 165 MHz Pulse Pattern Generator Output Module The 8111A is a 165 MHz / up to 10 V (into 50 Ω) output module for the 8110A pulse pattern generator mainframe. Single-ended BNC outputs with variable transition times; natural upgrade path from 81101A/81104A systems. The 8111A is a 165 MHz / up to 10 V (into 50 Ω) output module for the 8110A pulse pattern generator mainframe. Single-ended BNC outputs with variable transition times; natural upgrade path from 81101A/81104A systems.



MODEL

**Keysight / Agilent
8111A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8111A

LISTING

<https://aumictechlabs.com/products/8111a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight (Agilent) 8111A is a 165 MHz output module that integrates with the 8110A pulse/pattern generator mainframe to deliver dual-channel signal generation for high-speed digital testing. This module provides maximum data rates of 165 Mbps with output amplitudes up to 20 Vpp into 50 Ω and configurable output impedance from 50 Ω to 1 k Ω . The 8111A supports variable transition times between 3 ns and 200 ms, internal or external clocking, and repetition rates from 1 mHz to 165 MHz, making it ideal for communications, aerospace and defense, and automotive test applications requiring precise pulse and pattern generation. Technical Specifications Maximum frequency: 165 MHz Maximum data rate: 165 Mbps Dual-channel single-ended outputs with BNC connectors Output amplitude: Up to 20 Vpp into 50 Ω Output impedance: Selectable 50 Ω to 1 k Ω Transition times: 3 ns to 200 ms variable Repetition rate: 1 mHz to 165

MHz Pattern depth: 16 kbit per channel Maximum PRBS pattern: 14 Minimum period: 3.03 ns to (period - width - 1.5 ns) Settling time: 30 ns typical Level accuracy: $\pm 5\%$ Timing accuracy with PLL: 0.001% + 15 ps Timing accuracy with self-calibration (non-PLL): 0.5% typical Jitter (RMS) with PLL: 0.01% + 15 ps

Key Features Glitch-free timing changes with triggerable or internal PLL Self-calibration for improved timing accuracy Supports data patterns and Pseudo Random Binary Sequence (PRBS) generation Load compensation allows entry of actual load values for accurate output display Programmable high and low level limits for device-under-test protection Internal and external clock input supported; can lock to external 5 MHz or 10 MHz reference

Typical Applications Communications equipment testing Aerospace and defense test systems Automotive test applications High-speed digital pattern validation

Compatibility & Integration Designed for the Keysight (Agilent) 81110A pulse/pattern generator mainframe. Two output modules can be configured for digitally added outputs. Programming commands maintain backward compatibility with the 81101A and 81104A models.

Features & description

From manufacturer datasheet

Features

• Frequency range: 1 mHz to 165 MHz • Amplitude: 100 mV to 10 V class (into 50 Ω ; also 50 Ω /1 k Ω selectable impedance modes) • Transition time: variable 2 ns to 200 ms class (≤ 2 ns / 1.4 ns typ. for ECL 20/80) • Outputs: single-ended BNC • Host: 81110A (1 or 2 modules) • Modes (mainframe): pulse, burst, pattern; PRBS, NRZ, RZ, DNRZ • Pattern memory: 16 kbit/channel class • Timing accuracy improved after self-cal (0.5% / 3% classes per 81100 family tables) • Compared to 81112A: lower frequency, higher amplitude, variable edges vs fixed 0.8/1.6 ns

Applications

• Pulse/pattern/PRBS generation to 165 MHz • Flash / communications / ATE digital stimulus • Single- or dual-channel 81110A configurations

81111A Characteristics / Specifications

PARAMETER	VALUE
Model	81111A
Manufacturer	Keysight / Agilent
Instrument Type	Pulse Pattern Generator Output Module
Alias	81111A; Agilent 81111A; Keysight 81111A
Frequency max	165 MHz
Amplitude max	10 Vpp class
Output	single-ended BNC
Transition	variable ≥ 2 ns class
Host	81110A Notes Specs from Agilent 81100 Family / 81110A+81111A literature. Confirm mainframe and channel count on the system.
Frequency range	1 mHz to 165 MHz
Amplitude	100 mV to 10 V class (into 50 Ω ; also 50 Ω /1 k Ω selectable impedance modes)
Transition time	variable 2 ns to 200 ms class (≤ 2 ns / 1.4 ns typ. for ECL 20/80)
Outputs	single-ended BNC
Modes (mainframe)	pulse, burst, pattern; PRBS, NRZ, RZ, DNRZ
Pattern memory	16 kbit/channel class
Compared to 81112A	lower frequency, higher amplitude, variable edges vs fixed 0.8/1.6 ns

81111A Specifications

PARAMETER	VALUE
Applications	- Pulse/pattern/PRBS generation to 165 MHz
Key Features	- Frequency range: 1 mHz to 165 MHz
Technical Specifications	Model: 81111A
Notes	Specs from Agilent 81100 Family / 81110A+81111A literature. Confirm mainframe and channel count on the system.

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	81111A
Manufacturer	Keysight / Agilent
Instrument Type	Pulse Pattern Generator Output Module
Alias	81111A; Agilent 81111A; Keysight 81111A

Specifications

PARAMETER	VALUE
Frequency max	165 MHz
Amplitude max	10 Vpp class
Output	single-ended BNC
Transition	variable ≥2 ns class
Host	81110A

Notes
Specs from Agilent 81100 Family / 81110A+81111A literature. Confirm mainframe and channel count on the system.

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.