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**Data Sheet**

August 13, 2026

AGILENT

# Agilent 81130A 400/660MHz Pulse/Pattern Generator w/ options 81132A x 2 \*TESTED\*

Agilent 81130A 400/660MHz Pulse/Pattern Generator w/ options 81132A x 2

\*TESTED\*, "Generates precise, high-speed pulse and pattern outputs for testing digital systems, ICs, and high-speed communication interfaces. Configured with dual channels for flexible timing control. Tested for reliability, it is suitable for advanced R&D applications requiring fast rise times, clean signal transitions, and programmable pulse parameters up to 660 MHz."



MODEL

**Agilent 81130A /  
81132A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**81130A / 81132A**

LISTING

<https://aumictechlabs.com/products/81130a-81132a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Agilent 81130A Pulse/Pattern Generator with dual 81132A output modules delivers high-speed pulse and pattern generation for digital systems, integrated circuits, and high-speed communication interfaces. Operating across dual channels from 1 kHz to 660 MHz at data rates up to 1.32 Gbps, this tested instrument provides flexible timing control with 500 ps transition times and 50  $\Omega$  source impedance. Output amplitude ranges from 0.10 Vpp to 2.50 Vpp into 50  $\Omega$  with 10 mV resolution. Technical Specifications Frequency Range: 1 kHz to 660 MHz Maximum Data Rate: 1.32 Gbps Output Amplitude: 0.10 Vpp to 2.50 Vpp into 50  $\Omega$  Amplitude Resolution: 10 mV

Transition Time (10-90%): 500 ps typical Source Impedance: 50  $\Omega$  Pattern Memory: 64 kbit per channel, segmentable Frequency Resolution: 4 digits, 2 ps best case Timing Resolution: 3.5 digits, 5 ps best case Width Range (81132A): 750 ps to (period - 750 ps) Delay Range: 1.5 ns to 1 ms Period RMS Jitter: 0.00 ns to 3.00  $\mu$ s Connectors: SMA (f) 3.5 mm, differential outputs Power Requirements: 100–240 VAC,  $\pm$ 10%, 50–60 Hz Power Consumption: 300 VA max Dimensions: 89 mm H  $\times$  426 mm W  $\times$  521 mm D Weight: 9.2 kg

**Key Features** Selectable Pulse, Burst, and Pattern modes Sequenced PRBS capability for serial data requirements Counted loop function for repetitive pattern generation Channel addition (EXOR) creates complex signals with up to four independent timing edges and dual pulse widths Pulse format support: RZ, NRZ, and R1 Logic technology support: CMOS, TTL, LVDS, ECL PLL oscillator with advanced delay and width accuracy

**Typical Applications** Digital system validation, IC testing, high-speed interface characterization, serial data pattern generation, logic device testing.

**Compatibility & Integration** GP-IB/SCPI-conform remote control interface. Programs designed for the 81130A are compatible with other instruments in the Agilent 81100 family.

## 81130A81132A Characteristics / Specifications

| PARAMETER                        | VALUE                                                                                                                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trigger modes                    | continuous, external started, external gated, and manual IEEE 488.2 / SCPI 1992.0 remote control; PCMCIA memory card for 99 settings<br>Autoset resolves timing conflicts; non-volatile current setting plus nine user stores Technical Specifications |
| Model                            | 81130A with 81132A                                                                                                                                                                                                                                     |
| Manufacturer                     | Agilent / Hewlett-Packard / Keysight                                                                                                                                                                                                                   |
| Instrument Type                  | Pulse / pattern generator mainframe with output module                                                                                                                                                                                                 |
| Alias                            | Agilent 81130A; HP 81130A; 81132A 660 MHz module                                                                                                                                                                                                       |
| Channels                         | 1 or 2 (81132A modules)                                                                                                                                                                                                                                |
| Frequency Range 81132A           | 170 kHz (extended 1 kHz) to 660 MHz                                                                                                                                                                                                                    |
| Frequency Range 81131A Alternate | 170 kHz (extended 1 kHz) to 400 MHz                                                                                                                                                                                                                    |
| Frequency Resolution             | 4 digits (2 ps best case)                                                                                                                                                                                                                              |
| Period Range 81132A              | 1.50 ns to 5.9 us (below 170 kHz: 1.5 ns to 1.0 ms)                                                                                                                                                                                                    |
| Period Accuracy                  | plus/minus 100 ppm                                                                                                                                                                                                                                     |
| RMS Jitter Internal Ref Clock    | 0.001 percent + 15 ps (width and delay); period jitter 0.001 percent + 5 ps on family table                                                                                                                                                            |
| Width Range 81132A               | 750 ps to (period minus 750 ps)                                                                                                                                                                                                                        |
| Width Resolution                 | 4 digits (2 ps best case)                                                                                                                                                                                                                              |
| Width Accuracy 81132A            | plus/minus (100 ppm + 200 ps); below 170 kHz 0.06 percent of period                                                                                                                                                                                    |
| Variable Delay Range             | 0 to 3.00 us independent of period                                                                                                                                                                                                                     |
| Delay Accuracy                   | plus/minus (0.01 percent + 100 ps) relative to zero delay                                                                                                                                                                                              |
| Deskew Range                     | plus/minus 25 ns                                                                                                                                                                                                                                       |
| Transition Time 81132A Typical   | 500 ps typical (10/90); less than 350 ps (200 ps class) at ECL 20/80                                                                                                                                                                                   |
| Amplitude 81132A                 | 0.10 Vpp to 2.50 Vpp                                                                                                                                                                                                                                   |
| Level Window 81132A              | -2.00 V to +3.00 V                                                                                                                                                                                                                                     |
| Level Accuracy 81132A            | plus/minus (5 percent + 50 mV) after typical 30 ns settling, 50 ohm into 50 ohm                                                                                                                                                                        |

| PARAMETER                       | VALUE                                                                                                                                                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level Resolution                | 3 digits (10 mV best case)                                                                                                                                                                                                                                        |
| Output Impedance 81132A         | 50 ohm plus/minus 5 percent typical                                                                                                                                                                                                                               |
| Maximum External Voltage 81132A | -2.0 V to +4.0 V                                                                                                                                                                                                                                                  |
| Short Circuit Current 81132A    | -80 mA to +120 mA                                                                                                                                                                                                                                                 |
| Baseline Noise 81132A           | 8 mV RMS typical                                                                                                                                                                                                                                                  |
| Overshoot Ringing 81132A        | plus/minus (5 percent + 100 mV) of amplitude typical                                                                                                                                                                                                              |
| Pattern Length                  | 65504 bit per channel                                                                                                                                                                                                                                             |
| PRBS Polynomial                 | $2^n - 1$ , $n = 7, 8, \dots, 15$ (CCITT 0.151)                                                                                                                                                                                                                   |
| Burst Count                     | 2 to 65504                                                                                                                                                                                                                                                        |
| Duty Cycle Range                | 0.1 percent to 99.9 percent (subject to width limits)                                                                                                                                                                                                             |
| Clock Input Frequency           | 170 kHz to 660 MHz at 50 percent plus/minus 10 percent duty cycle                                                                                                                                                                                                 |
| External Input Frequency        | DC to 330 MHz                                                                                                                                                                                                                                                     |
| PLL Reference Frequencies       | 1, 2, 5, or 10 MHz                                                                                                                                                                                                                                                |
| Clock Input Connector           | SMA (f) 3.5 mm; 50 ohm                                                                                                                                                                                                                                            |
| Power Requirements              | 100 to 240 Vac plus/minus 10 percent, 50 to 60 Hz; 100 to 120 Vac plus/minus 10 percent, 400 Hz                                                                                                                                                                   |
| Power Consumption               | 300 VA maximum                                                                                                                                                                                                                                                    |
| Dimensions                      | 89 mmHx 426 mmWx 521 mmDWeight: 9.2 kg net; 13.8 kg shipping                                                                                                                                                                                                      |
| Operating Temperature           | 0 C to +55 C                                                                                                                                                                                                                                                      |
| Storage Temperature             | -40 C to +70 C                                                                                                                                                                                                                                                    |
| Humidity                        | 95 percent RH up to 40 C                                                                                                                                                                                                                                          |
| Recalibration Period            | one year recommended Notes Specs from Agilent 81100 Family Pulse/Pattern Generators datasheet (5980-1215 class) for 81130A with 81132A. Do not mix 81131A and 81132A in one mainframe. Confirm installed module (81131A vs 81132A) and channel count on the unit. |

# General Specifications & Supplementary Characteristics

| PARAMETER             | VALUE                                                                                                                                                                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage temperature   | 40 C to +70 C                                                                                                                                                                                                                                                     |
| Operating temperature | 0 C to +55 C                                                                                                                                                                                                                                                      |
| Operating Temperature | 0 C to +55 C                                                                                                                                                                                                                                                      |
| Humidity              | 95 percent RH up to 40 C                                                                                                                                                                                                                                          |
| Recalibration Period  | one year recommended Notes Specs from Agilent 81100 Family Pulse/Pattern Generators datasheet (5980-1215 class) for 81130A with 81132A. Do not mix 81131A and 81132A in one mainframe. Confirm installed module (81131A vs 81132A) and channel count on the unit. |

# 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                   |                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------|
| Technical Specifications         |                                                                                             |
| PARAMETER                        | VALUE                                                                                       |
| Model                            | 81130A with 81132A                                                                          |
| Manufacturer                     | Agilent / Hewlett-Packard / Keysight                                                        |
| Instrument Type                  | Pulse / pattern generator mainframe with output module                                      |
| Alias                            | Agilent 81130A; HP 81130A; 81132A 660 MHz module                                            |
| Channels                         | 1 or 2 (81132A modules)                                                                     |
| Frequency Range 81132A           | 170 kHz (extended 1 kHz) to 660 MHz                                                         |
| Frequency Range 81131A Alternate | 170 kHz (extended 1 kHz) to 400 MHz                                                         |
| Frequency Resolution             | 4 digits (2 ps best case)                                                                   |
| Period Range 81132A              | 1.50 ns to 5.9 us (below 170 kHz: 1.5 ns to 1.0 ms)                                         |
| Period Accuracy                  | plus/minus 100 ppm                                                                          |
| RMS Jitter Internal Ref Clock    | 0.001 percent + 15 ps (width and delay); period jitter 0.001 percent + 5 ps on family table |
| Width Range 81132A               | 750 ps to (period minus 750 ps)                                                             |
| Width Resolution                 | 4 digits (2 ps best case)                                                                   |
| Width Accuracy 81132A            | plus/minus (100 ppm + 200 ps); below 170 kHz 0.06 percent of period                         |
| Variable Delay Range             | 0 to 3.00 us independent of period                                                          |
| Delay Accuracy                   | plus/minus (0.01 percent + 100 ps) relative to zero delay                                   |
| Deskew Range                     | plus/minus 25 ns                                                                            |
| Transition Time 81132A Typical   | 500 ps typical (10/90); less than 350 ps (200 ps class) at ECL 20/80                        |
| Amplitude 81132A                 | 0.10 Vpp to 2.50 Vpp                                                                        |
| Level Window 81132A              | -2.00 V to +3.00 V                                                                          |
| Level Accuracy 81132A            | plus/minus (5 percent + 50 mV) after typical 30 ns settling, 50 ohm into 50 ohm             |
| Level Resolution                 | 3 digits (10 mV best case)                                                                  |
| Output Impedance 81132A          | 50 ohm plus/minus 5 percent typical                                                         |
| Maximum External Voltage 81132A  | -2.0 V to +4.0 V                                                                            |
| Short Circuit Current 81132A     | -80 mA to +120 mA                                                                           |

| PARAMETER                 | VALUE                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Baseline Noise 81132A     | 8 mV RMS typical                                                                                |
| Overshoot Ringing 81132A  | plus/minus (5 percent + 100 mV) of amplitude typical                                            |
| Pattern Length            | 65504 bit per channel                                                                           |
| PRBS Polynomial           | 2 <sup>n</sup> -1, n = 7, 8, ..., 15 (CCITT 0.151)                                              |
| Burst Count               | 2 to 65504                                                                                      |
| Duty Cycle Range          | 0.1 percent to 99.9 percent (subject to width limits)                                           |
| Clock Input Frequency     | 170 kHz to 660 MHz at 50 percent plus/minus 10 percent duty cycle                               |
| External Input Frequency  | DC to 330 MHz                                                                                   |
| PLL Reference Frequencies | 1, 2, 5, or 10 MHz                                                                              |
| Clock Input Connector     | SMA (f) 3.5 mm; 50 ohm                                                                          |
| Power Requirements        | 100 to 240 Vac plus/minus 10 percent, 50 to 60 Hz; 100 to 120 Vac plus/minus 10 percent, 400 Hz |
| Power Consumption         | 300 VA maximum                                                                                  |
| Dimensions                | 89 mm H x 426 mm W x 521 mm D                                                                   |
| Weight                    | 9.2 kg net; 13.8 kg shipping                                                                    |
| Operating Temperature     | 0 C to +55 C                                                                                    |
| Storage Temperature       | -40 C to +70 C                                                                                  |
| Humidity                  | 95 percent RH up to 40 C                                                                        |
| Recalibration Period      | one year recommended                                                                            |

## Specifications

| PARAMETER                        | VALUE                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------|
| Model                            | 81130A with 81132A                                                                          |
| Manufacturer                     | Agilent / Hewlett-Packard / Keysight                                                        |
| Instrument Type                  | Pulse / pattern generator mainframe with output module                                      |
| Alias                            | Agilent 81130A; HP 81130A; 81132A 660 MHz module                                            |
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| Period Range 81132A              | 1.50 ns to 5.9 us (below 170 kHz: 1.5 ns to 1.0 ms)                                         |
| Period Accuracy                  | plus/minus 100 ppm                                                                          |
| RMS Jitter Internal Ref Clock    | 0.001 percent + 15 ps (width and delay); period jitter 0.001 percent + 5 ps on family table |

| PARAMETER                       | VALUE                                                                                           |
|---------------------------------|-------------------------------------------------------------------------------------------------|
| Width Range 81132A              | 750 ps to (period minus 750 ps)                                                                 |
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| Amplitude 81132A                | 0.10 Vpp to 2.50 Vpp                                                                            |
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| Burst Count                     | 2 to 65504                                                                                      |
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| Clock Input Frequency           | 170 kHz to 660 MHz at 50 percent plus/minus 10 percent duty cycle                               |
| External Input Frequency        | DC to 330 MHz                                                                                   |
| PLL Reference Frequencies       | 1, 2, 5, or 10 MHz                                                                              |
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| Power Consumption               | 300 VA maximum                                                                                  |
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| Operating Temperature           | 0 C to +55 C                                                                                    |
| Storage Temperature             | -40 C to +70 C                                                                                  |
| Humidity                        | 95 percent RH up to 40 C                                                                        |
| Recalibration Period            | one year recommended                                                                            |

#### Notes

Specs from Agilent 81100 Family Pulse/Pattern Generators datasheet (5980-1215 class) for 81130A with 81132A. Do not mix 81131A and 81132A in one mainframe. Confirm installed module (81131A vs 81132A) and channel count on the unit.

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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<https://aumictechlabs.com>

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