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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N2821A

HP Agilent Keysight N2821A High Sensitivity Current Probe 1 Channel The Keysight N2821A is a one-channel high-sensitivity AC/DC current probe for wide dynamic-range low-current measurements using replaceable sense resistors. OEM data sheet 5991-1711EN rates zoom-out bandwidth DC to 3 MHz and zoom-in bandwidth DC to 500 kHz, with minimum measurable current down to 50 μ A using the N2824A 100 mOhm sensor and 1000:1 dynamic range on the single-channel model. Low-current IoT and mobile device power analysis, sleep-current and burst-current characterization on oscilloscopes supporting the probe interface. The Keysight N2821A is a one-channel high-sensitivity AC/DC current probe for wide dynamic-range low-current measurements using replaceable sense resistors. OEM data sheet 5991-1711EN rates zoom-out bandwidth DC to 3 MHz and zoom-in bandwidth DC to 500 kHz, with minimum measurable current down to 50 μ A using the N2824A 100 mOhm sensor and 1000:1 dynamic range on the single-channel model. Low-current IoT and mobile device power analysis, sleep-current and burst-current characterization on oscilloscopes supporting the probe interface.

**MODEL****Agilent / Keysight
N2821A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****N2821A****LISTING**<https://aumictechlabs.com/products/n2821a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N2821A is a single-channel AC/DC current probe designed for precision measurement of low-level current flow in battery-powered devices, integrated circuits, and sub-circuit characterization. Its high sensitivity and dynamic range enable accurate signal

reproduction with minimal loading effects across demanding measurement environments.

Technical Specifications

Measurement Range: 50 μ A to 5 A Bandwidth: 3 MHz (Zoom-Out Channel); 500 kHz (Zoom-In Channel) Dynamic Range: >1,000:1 (60 dB) normal; >20,000:1 (86 dB) with specific configurations Sensitivity: 50 mA Rise Time: <0.116 μ s (Zoom-Out); 0.7 μ s (Zoom-In) Noise Floor: 2 mA RMS (typical) Accuracy: $\pm$ 1% of full scale $\pm$ probe gain accuracy, or $\pm$ 1% of reading Maximum Input Voltage: 12 V (or $\pm$ 300 V DC + peak AC with specific configurations) Input Coupling: AC/DC Output Connector: BNC Cable Length: 1.2 m Probe Length: 0.16 m Dimensions: 145 mm $\times$ 22.5 mm $\times$ 15.5 mm Weight: 70 g (without cable)

Key Features

Interchangeable Rsense heads (20 m Ω , 100 m Ω , user-defined 1 m Ω to 1 M Ω) Make-Before-Break connector for non-destructive multi-point probing Compatible with Keysight AutoProbe high-impedance interface Powered by external Keysight oscilloscope or power supply Includes MBB receptacles, twisted leads, ground lead, and passive cable

Typical Applications

Battery-powered device current consumption analysis IC power profiling and characterization Sub-circuit current measurement Low-level transient capture

Compatibility & Integration

Compatible with 3000 X-Series, 4000 X-Series, Infiniium S-Series, 9000A Series, and 9000 H-Series oscilloscopes. Not compatible with Infiniium V, 90000A, 90000 X-, and 90000 Q-Series.

N2821A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	High-sensitivity AC/DC current probe one channel
Bandwidth Zoom Out	DC to 3 MHz
Bandwidth Zoom In	DC to 500 kHz
Rise Time Zoom Out	less than 0.116 us
Rise Time Zoom In	less than 0.7 us
Minimum Measurable Current N2822A	250 uA (20 mOhm 500 mW)
Minimum Measurable Current N2824A	50 uA (100 mOhm 500 mW)
Minimum Measurable Current N2825A 1 Mohm Class	100 nA (user-defined 1 kOhm 500 mW example in OEM table)
Maximum Measurable Current N2822A	5 A
Maximum Measurable Current N2824A	2.2 A
Gain Zoom In	300 plus or minus 3 percent
Gain Zoom Out	1.97 plus or minus 3 percent
Output Voltage Rate Zoom In N2822A	6 V/A
Output Voltage Rate Zoom Out N2822A	0.04 V/A
Dc Amplitude Accuracy	plus or minus 3 percent or 10 uA whichever is greater
Max Input Voltage	plus or minus 12 V
Dynamic Range	1000:1 60 dB (N2821A)
Output Impedance	1 MOhm
Noise Acrms N2822A Hi Res On	150 uA rms
Noise Acrms N2824A Hi Res On	30 uA rms
Sensor Resistor Accuracy	plus or minus 1 percent (N2822A N2824A)
Sensor Resistor Power Rating	500 mW (N2822A N2824A)
Cable Probe Length	1.2 m
Sensor Lead Length	16 cm
Literature	Keysight 5991-1711EN

PARAMETER	VALUE
Bandwidth	Zoom Out: DC to 3 MHz
Rise Time	Zoom Out: less than 0.116 us

N2821A Specifications

PARAMETER	VALUE
Key Features	One user-selectable zoom-in or zoom-out view
AutoProbe style scope interface class	Wide dynamic range 1000:1 (60 dB) on N2821A
Technical Specifications	Instrument Type: High-sensitivity AC/DC current probe one channel

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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Notes

From Keysight N2820A/21A High-Sensitivity High Dynamic Range Current Probes data sheet 5991-1711EN. N2821A is the one-channel model without the secondary simultaneous-view cable of N2820A.

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.