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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N2831A

HP Agilent Keysight N2831A InfiniiMax III+ Probe Amplifier 8 GHz The Keysight N2831A is an InfiniiMax III+ probe amplifier rated 8 GHz with InfiniiMode differential, single-ended, and common-mode measurements without changing tip connections. OEM InfiniiMax III/III+ literature and Keysight oscilloscope probes selection guide list AutoProbe interface, 5:1/10:1 DC attenuation, and 100 kOhm / 0.32 pF differential loading class with III+ noise density tables. High-speed differential bus probing and Infiniium capture using InfiniiMax III/III+ probe heads. The Keysight N2831A is an InfiniiMax III+ probe amplifier rated 8 GHz with InfiniiMode differential, single-ended, and common-mode measurements without changing tip connections. OEM InfiniiMax III/III+ literature and Keysight oscilloscope probes selection guide list AutoProbe interface, 5:1/10:1 DC attenuation, and 100 kOhm / 0.32 pF differential loading class with III+ noise density tables. High-speed differential bus probing and Infiniium capture using InfiniiMax III/III+ probe heads. InfiniiMode differential SEASEBand common mode



MODEL

**Agilent / Keysight
N2831A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N2831A

LISTING

<https://aumictechlabs.com/products/n2831a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N2831A is an 8 GHz probe amplifier in the InfiniiMax III+ Series, purpose-built for differential and single-ended signal integrity measurements. This amplifier expands measurement capabilities by enabling analysis of differential, single-ended, and common mode signal components from a single probe connection. InfiniiMode technology allows switching between

measurement modes - differential (A-B), single-ended A (A-ground), single-ended B (B-ground), and common mode ((A+B)/2-ground) - without repositioning the probe tip.

Technical Specifications

Bandwidth: 8 GHz (-3 dB) Rise time: 54.25 psec (10-90%) DC attenuation ratio: 10:1 / 5:1 selectable Input voltage range: 2.5 Vpp (5:1 mode) or 5 Vpp (10:1 mode) Input common mode range: ± 7 VDC to 100 Hz; ± 1.25 V (5:1) or ± 2.5 V (10:1) above 100 Hz DC offset range: ± 16 V (single-ended probing) Differential input resistance (DC): $100\text{ k}\Omega \pm 2\%$ Single-ended input resistance (DC): $50\text{ k}\Omega \pm 2\%$ Differential input resistance (>10 kHz): $1\text{ k}\Omega$ Single-ended input resistance (>10 kHz): $500\text{ }\Omega$ Differential input capacitance: 32 fF (with ZIF probe head) Single-ended input capacitance: 44 fF (with ZIF probe head)

Key Features

InfiniiMode measurement technology enables flexible signal analysis modes from one probe connection Compatible with the complete InfiniiMax III probe head family, including QuickTip, ZIF, 2.92 mm/3.5 mm/SMA, solder-in, and browser configurations AutoProbe interface provides automatic probe detection and power management Not compatible with InfiniiMax I or II probe heads

Typical Applications

Differential signal characterization, single-ended and common mode analysis, multi-layer PCB probing, high-speed serial link validation, and complex signal decomposition in demanding measurement environments.

Compatibility & Integration

The N2831A integrates with Infiniium 90000X/Q Series oscilloscopes (20 GHz models) and works exclusively with InfiniiMax III probe heads. This is a discontinued product.

N2831A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	InfiniiMax III+ probe amplifier
Amplifier Bandwidth	8 GHz
Series Family	Keysight N2830/N2831/N2832/N2833 InfiniiMax III+
Scope Interface	AutoProbe
InfiniiMode Differential	A minusBInfiniiMode Single Ended A: A minus ground
InfiniiMode Single Ended B	B minus ground
InfiniiMode Common Mode	(A plus B)/2 minus ground
Dc Attenuation	5:1 or 10:1 automatically selected from volts/division
Dc Input Resistance Differential	100 kOhm plus or minus 2 percent
Dc Input Resistance Single Ended	50 kOhm plus or minus 2 percent
Input Capacitance Class	0.32 pF differential class per selection guide
Input Voltage 5 To	2.5 Vpp or plus or minus 1.25 V
Input Voltage 10 To	5.0 Vpp or plus or minus 2.50 V
Noise Diff 5 To	33.5 nV per sqrt Hz (III+ InfiniiMode differential 5:1)
Noise Diff 10 To	53.9 nV per sqrt Hz (III+ differential 10:1)
Noise Se 5 To	27.8 nV per sqrt Hz
Noise Se 10 To	47.7 nV per sqrt Hz
Noise Cm 5 To	21.8 nV per sqrt Hz
Noise Cm 10 To	38.4 nV per sqrt Hz
Head Compatibility	InfiniiMax III/III+ probe heads
Offset Range Class	plus or minus 16 V class per selection guide
Literature	Keysight InfiniiMax III/III+ probing system data sheet 5990-5653EN and probes selection guide
Recommended Oscilloscope Class	Infiniium models supporting AutoProbe InfiniiMax III+
Bandwidth	8 GHz

PARAMETER	VALUE
Attenuation	5:1 or 10:1 automatically selected from volts/division

N2831A Specifications

PARAMETER	VALUE
Applications	High-speed differential bus probing and Infiniium capture using InfiniiMax III/III+ probe heads.
InfiniiMode differential SE A SE B and common mode	8 GHz amplifier bandwidth
AutoProbe interface	Works with InfiniiMax III/III+ heads not I/II heads
Technical Specifications	Instrument Type: InfiniiMax III+ probe amplifier

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
Instrument Type	InfiniiMax III+ probe amplifier
Amplifier Bandwidth	8 GHz
Series Family	Keysight N2830/N2831/N2832/N2833 InfiniiMax III+
Scope Interface	AutoProbe
InfiniiMode Differential	A minusBInfiniiMode Single Ended A: A minus ground
InfiniiMode Single Ended B	B minus ground
InfiniiMode Common Mode	(A plus B)/2 minus ground
Dc Attenuation	5:1 or 10:1 automatically selected from volts/division
Dc Input Resistance Differential	100 kOhm plus or minus 2 percent
Dc Input Resistance Single Ended	50 kOhm plus or minus 2 percent
Input Capacitance Class	0.32 pF differential class per selection guide
Input Voltage 5 To 1	2.5 Vpp or plus or minus 1.25 V
Input Voltage 10 To 1	5.0 Vpp or plus or minus 2.50 V
Noise Diff 5 To 1	33.5 nV per sqrt Hz (III+ InfiniiMode differential 5:1)
Noise Diff 10 To 1	53.9 nV per sqrt Hz (III+ differential 10:1)
Noise Se 5 To 1	27.8 nV per sqrt Hz
Noise Se 10 To 1	47.7 nV per sqrt Hz
Noise Cm 5 To 1	21.8 nV per sqrt Hz
Noise Cm 10 To 1	38.4 nV per sqrt Hz
Head Compatibility	InfiniiMax III/III+ probe heads
Offset Range Class	plus or minus 16 V class per selection guide
Literature	Keysight InfiniiMax III/III+ probing system data sheet 5990-5653EN and probes selection guide
Recommended Oscilloscope Class	Infiniium models supporting AutoProbe InfiniiMax III+

Notes

Bandwidth and interface from Keysight product/selection-guide listing for N2831A. Attenuation, input voltage,

and noise-density rows from Keysight InfiniiMax III/III+ data sheet 5990-5653EN III+ tables. Confirm AutoProbe generation and firmware on the target Infiniium.

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.