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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N2803A 30 GHz InfiniiMax III Probe Amplifier

Keysight / Agilent N2803A InfiniiMax III Probe Amplifier, 30 GHz The N2803A is a 30 GHz InfiniiMax III differential probe amplifier for Infiniium 90000 X/Q/Z Series high-bandwidth scopes. Uses InP IC process; stores measured S-parameters for automatic response correction. Compatible with InfiniiMax III heads only (not I/II). The N2803A is a 30 GHz InfiniiMax III differential probe amplifier for Infiniium 90000 X/Q/Z Series high-bandwidth scopes. Uses InP IC process; stores measured S-parameters for automatic response correction. Compatible with InfiniiMax III heads only (not I/II).



MODEL

**Keysight / Agilent
N2803A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N2803A

LISTING

<https://aumictechlabs.com/products/n2803a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight N2803A is a 30 GHz InfiniiMax III Series probe amplifier engineered for high-speed signal measurements requiring exceptional signal fidelity and minimal loading on the Device Under Test. Built on a proprietary 200 GHz fT InP IC process with backside ground vias and thick film technology, this amplifier delivers low noise performance across the probe and oscilloscope system while maintaining full 30 GHz bandwidth to the probe tip when paired with compatible probe heads. Technical Specifications Bandwidth and Rise Time Bandwidth: 30 GHz Rise Time:

14.3 psec Signal Handling DC Attenuation Ratio: 6:1 (3:1 with 200 Ω ZIF tip) Input Voltage Range: 1.6 Vpp (0.8 Vpp with 200 Ω ZIF tip) Input Common Mode Range: ± 12 V DC to 250 Hz; ± 2.5 V above 250 Hz (± 6 V and ± 1.25 V respectively with 200 Ω ZIF tip) Offset Range: ± 16 V for single-ended probing Input Impedance DC Differential Resistance: 100 k Ω $\pm 2\%$ DC Single-Ended Resistance: 50 k Ω $\pm 2\%$ AC Differential Resistance (>10 kHz): 1 k Ω AC Single-Ended Resistance (>10 kHz): 500 Ω Differential Capacitance: 32 fF (ZIF probe head) Single-Ended Capacitance: 48 fF (ZIF probe head) Key Features Full 30 GHz bandwidth to probe tip with N5445A browser probe head Ultra-low probe and scope system noise Minimal DUT loading with extreme signal fidelity Pre-characterized S-parameters for accurate response correction Bandwidth upgradeable architecture Multiple probe head options for diverse measurement applications Typical Applications High-speed digital and analog signal integrity measurements, serial data eye diagram analysis, and broadband RF/microwave characterization on integrated circuits and discrete components. Compatibility & Integration Works with N5445A, N5444A, N5439A, MX0109A, and N2836A probe heads. Connects to UXR 3.5 mm oscilloscopes, UXR 1 and 1.85 mm scopes (via N2852A adapter), 90000X/Q/V/Z-series, and Infiniium 90000 X-Series instruments. Keysight DCA-X sampling scopes require N5477A adapter. Not backward-compatible with InfiniiMax I or II probe heads or amplifiers.

Features & description

From manufacturer datasheet

Features

- Bandwidth: 30 GHz (full BW to tip with N5445A browser) • Rise time: $T_r = 14.3$ ps • DC attenuation: 6:1 (3:1 with 200 Ω ZIF tip) • Input voltage range: 1.6 Vpp (0.8 Vpp with 200 Ω ZIF tip) • Common mode: ± 12 V DC–250 Hz; ± 2.5 V >250 Hz (halved with 200 Ω tip) • Offset range: ± 16 V (single-ended probing)
- DC input R: $R_{diff} = 100$ k Ω $\pm 2\%$; $R_{se} = 50$ k Ω $\pm 2\%$ • Input R >10 kHz: $R_{diff} = 1$ k Ω ; $R_{se} = 500$ Ω • Input C (with ZIF head): $C_{diff} = 32$ fF; $C_{se} = 48$ fF • ZIF head + N5440A tip with N2803A: 26 GHz warranted BW class • Browser N5445A with N2803A: 28 GHz class • Recommended heads: N5445A, N5444A SMA, N5439A ZIF, MX0109A solder-in • Hosts: Infiniium 90000 X/Q/Z 28–63 GHz; UXR with adapters as published

Applications

- Differential / single-ended probing to 30 GHz • High-speed serial and microwave PCB debug • Bandwidth-matched probing for 28–63 GHz Infiniium models

N2803A Characteristics / Specifications

PARAMETER	VALUE
Model	N2803A
Manufacturer	Keysight / Agilent
Instrument Type	InfiniiMax III Probe Amplifier
Alias	N2803A; Keysight N2803A
Bandwidth	30 GHz (full BW to tip with N5445A browser)
Rise time	Tr = 14.3 ps
Attenuation	6:1
Input range	1.6 Vpp
Rdiff DC	100 k Ω $\pm$ 2%
Cdiff (ZIF)	32 fF
Head family	InfiniiMax III only Notes Specs from Keysight InfiniiMax III/III+ probing system data sheet and N2803A product literature. Exact tip BW depends on probe head—confirm head on the unit.
DC attenuation	6:1 (3:1 with 200 Ω ZIF tip)
Input voltage range	1.6 Vpp (0.8 Vpp with 200 Ω ZIF tip)
Common mode	$\pm$ 12 V DC–250 Hz; $\pm$ 2.5 V >250 Hz (halved with 200 Ω tip)
Offset range	$\pm$ 16 V (single-ended probing)
DC input R	Rdiff = 100 k Ω $\pm$ 2%; Rse = 50 k Ω $\pm$ 2%
Input R >10 kHz	Rdiff = 1 k Ω ; Rse = 500 Ω
Input C (with ZIF head)	Cdiff = 32 fF; Cse = 48 fF
ZIF head + N5440A tip with N2803A	26 GHz warranted BW class
Browser N5445A with N2803A	28 GHz class
Recommended heads	N5445A, N5444A SMA, N5439A ZIF, MX0109A solder-in
Hosts	Infiniium 90000 X/Q/Z 28–63 GHz; UXR with adapters as published

N2803A Specifications

PARAMETER	VALUE
Applications	- Differential / single-ended probing to 30 GHz
Key Features	- Bandwidth: 30 GHz (full BW to tip with N5445A browser)
Technical Specifications	Model: N2803A

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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Model	N2803A
Manufacturer	Keysight / Agilent
Instrument Type	InfiniiMax III Probe Amplifier
Alias	N2803A; Keysight N2803A
Specifications	
PARAMETER	VALUE
Bandwidth	30 GHz
Rise time	14.3 ps
Attenuation	6:1
Input range	1.6 Vpp
Rdiff DC	100 kΩ ±2%
Cdiff (ZIF)	32 fF
Head family	InfiniiMax III only
Notes	
Specs from Keysight InfiniiMax III/III+ probing system data sheet and N2803A product literature. Exact tip BW depends on probe head-confirm head 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 · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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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.