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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N4965A

Operating Temperature: plus 10 C to plus 40 C Power Consumption: 170 W maximum, 100 to 240 VAC Remote Interface: USB 2.0 and IEEE-488 (GPIB) Numeric rows from Keysight N4965A Multi-Channel BERT 12.5 Gb/s data sheet 5991-0707 (controller, N4955A, N4956A tables) and N4965A user's guide environmental/power table. Timing parameters are determined by the N4965A controller and external clock. Power Consumption: 170 W maximum, 100 to 240 VAC Remote Interface: USB 2.0 and IEEE-488 (GPIB) Numeric rows from Keysight N4965A Multi-Channel BERT 12.5 Gb/s data sheet 5991-0707 (controller, N4955A, N4956A tables) and N4965A user's guide environmental/power table. Timing parameters are determined by the N4965A controller and external clock.



MODEL

**Agilent / Keysight
N4965A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N4965A

LISTING

<https://aumictechlabs.com/products/n4965a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight N4965A is a modular multi-channel Bit Error Rate Tester (BERT) for characterization of high-speed serial data channels up to 12.5 Gb/s per channel. The instrument's modular architecture supports one to five remotely mountable heads, each configured as either a pattern generator or error detector. Remote head placement minimizes signal degradation from long cable runs - a critical advantage in high-speed serial testing. Technical Specifications Maximum data rate: 12.5 Gb/s per channel Modular head configuration: one to five remote heads Signal

connectivity: differential or single-ended Pattern generation: Pseudo-Random Binary Sequences (PRBS) of various lengths, clock patterns, DC logic 0 and logic 1 Signal conditioning: integrated four-tap de-emphasis Jitter handling: transparent pass-through without significant alterationKey Features Independent or ganged programming of generator output and detector input parameters Swept aggressor channel delay for crosstalk characterization Presets for common logic families BER bathtub and jitter tolerance testing (in conjunction with N4980A) Remote control via USB or GPIB Compact form factorTypical Applications Serial data receiver characterization up to 12.5 Gb/s Multi-lane device characterization Crosstalk characterizationCompatibility & Integration The N4965A operates with the following remote heads:N4955A 12.5 Gb/s Pattern Generator Remote HeadN4956A 12.5 Gb/s Error Detector Remote Head

N4965A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Multi-channel BERT controller with remote heads
Series Family	Keysight N4965A / N4955A / N4956A
Channel Count	up to 5 (channel 0 reference plus channels 1-4)
Output Data Rate	1.0 to 12.5 Gb/s
Input Clock Frequency	1.0 to 12.5 GHz
Ref Clock Amplitude Below 6.5 Ghz	minus 5 to plus 10 dBm (350 mV to 2 Vpp)
Ref Clock Amplitude At Or Above 6.5 Ghz	0 to plus 10 dBm (630 mV to 2 Vpp)
Aux Clock Amplitude	minus 10 to plus 10 dBm (200 mV to 2 Vpp) all frequencies
Residual Jitter Typical	1.2 ps rms typical (1.5 to 12.5 GHz with N4960A clock)
Divided Clock Amplitude	0.3 to 0.7 V in 5 mV steps, single-ended
Clock Output Offset	minus 2.0 to plus 2.0 V in 5 mV steps
Clock Rise Fall	25 ps maximum at 12.5 GHz, 0.7 V, divide-by-1
Prbs Patterns	2^n minus 1, n = 7, 10, 15, 23, 31
N4955A P12 Amplitude	0.2 to 2.0 Vpp single-ended, 5 mV resolution
N4955A D12 Amplitude	0.6 to 1.2 Vpp single-ended, 5 mV resolution
N4955A P12 Rise Fall	30 ps maximum, 24 ps typical (20-80 percent)
N4955A D12 Rise Fall	25 ps maximum, 20 ps typical (20-80 percent)
Additive Jitter Below 1.5 Gb/s	2.5 ps rms typical
Additive Jitter At Or Above 1.5 Gb/s	1.2 ps rms typical
Deemphasis P	0 to 20 dB in 0.1 dB steps (2-tap)
Delay Range	plus or minus 1000 UI, 1 mUI steps
Error Detector Sensitivity	less than 0.1 Vpp single-ended
Operating Temperature	plus 10 C to plus 40 C
Power Consumption	170 W maximum, 100 to 240 VAC
Remote Interface	USB 2.0 and IEEE-488 (GPIB)

PARAMETER	VALUE
Data Rate	1.0 to 12.5 Gb/s

N4965A Specifications

PARAMETER	VALUE
Applications	Multi-lane backplane and crosstalk characterization; aggressor delay sweep; 10G-class multi-channel BER.
Key Features	One to five remote heads on 1 m cables
Independent or ganged programming	Swept aggressor delay 0/1/2/4 Ulpp
Technical Specifications	Instrument Type: Multi-channel BERT controller with remote heads

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
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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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Aux Clock Amplitude	minus 10 to plus 10 dBm (200 mV to 2 Vpp) all frequencies
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Additive Jitter Below 1.5 Gb/s	2.5 ps rms typical
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Notes

Numeric rows from Keysight N4965A Multi-Channel BERT 12.5 Gb/s data sheet 5991-0707 (controller, N4955A, N4956A tables) and N4965A user's guide environmental/power table. Timing parameters are determined by the N4965A controller and external clock.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
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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.