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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N4962A

Agilent Keysight N4962A Serial BERT 12.5 Gb/s The Keysight N4962A isacompact 0.5 to 12.5 Gb/s PRBS generator and BERT for production and lab use. OEM N4962A data sheet 5991-0719 and user's guide list internal clock 9.90 to 11.35 Gb/s, external-clock operation 0.5 to 12.5 Gb/s, PRBS 2^n-1 (n=7,10,15,23,31), 300 to 1800 mVpp single-ended amplitude, and 18 ps typical / 23 ps maximum 20-80 percent rise/fall. Automated 10G transceiver production BER; stressed-eye receiver tests with DC-100 MHz jitter FM; compact placement near the DUT. The Keysight N4962A isacompact 0.5 to 12.5 Gb/s PRBS generator and BERT for production and lab use. OEM N4962A data sheet 5991-0719 and user's guide list internal clock 9.90 to 11.35 Gb/s, external-clock operation 0.5 to 12.5 Gb/s, PRBS 2^n-1 (n=7,10,15,23,31), 300 to 1800 mVpp single-ended amplitude, and 18 ps typical / 23 ps maximum 20-80 percent rise/fall. Automated 10G transceiver production BER; stressed-eye receiver tests with DC-100 MHz jitter FM; compact placement near the DUT. External clock (e.g. N4963A) 0.5 to 12.5 Gb/s

MODEL **Agilent / Keysight N4962A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **N4962A**	LISTING **https://aumictechlabs.com/products/n4962a-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight N4962A is a serial Bit Error Rate Tester (BERT) engineered for production-line testing, manufacturing, and characterization of high-speed optical transceivers and digital communication devices up to 12.5 Gb/s. Its compact form factor and straightforward local push-

button and GPIB remote interfaces enable placement close to the device under test, minimizing cabling complexity. The instrument combines highly integrated custom ASICs for superior reliability and reduced thermal dissipation, making it ideal for manufacturing floors, incoming inspection stations, and R&D environments.Technical Specifications Data Rate Performance 0.5 to 12.5 Gb/s with external clock 9.90 to 11.35 Gb/s with internal clock synthesizer (programmable to 9.85 GHz) Clock System Internal synthesizer: 9.90 to 11.35 GHz External clock input: 618.75 to 709.375 MHz, 2 Vpp max, AC coupled 50 Ω SMA TX and RX clock outputs: 9.90 to 11.35 GHz, 1 Vpp typical, AC coupled 50 Ω SMA RX external clock input: 0.5 to 12.5 GHz, 1–2 Vpp sensitivity, DC coupled 50 Ω SMA Jitter injection: DC to 100 MHz, 2 Vpp max, AC coupled interface Pattern Generation & Detection Five selectable PRBS patterns with configurable mark-space density and pattern length Programmable output amplitude control Electronic phase adjustment on error detector Trigger Outputs High-frequency trigger: 9.90 to 11.35 GHz, 1.3 Vpp typical, AC coupled 50 Ω SMA Low-frequency trigger (1/16 clock): 618.75 to 709.375 MHz, 0.5 Vpp typical, AC coupled 50 Ω SMA Signal Interfaces Differential or single-ended input/output capabilityKey Features Dual clock architecture supports both internal synthesis and external clock references Frequency modulation capability for stressed eye characterization and jitter stress testing AC and DC coupled clock inputs accommodate diverse test environments Integrated custom ASICs reduce component count and operating temperatureTypical Applications 10G optical transceiver production testing and characterization Wafer viscal testing, assembly validation, and transceiver production lines Communication component incoming inspection and qualification Manufacturing and R&D laboratory device validationCompatibility & Integration Local control via front-panel push-buttons or remote GPIB interface for seamless integration into automated test environments.

N4962A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Serial BERT (PRBS generator and error detector)
Series Family	Keysight N4962A / N496x serial BERT
Data Rate External Clock	0.5 to 12.5 Gb/s
Data Rate Internal Clock	9.90 to 11.35 Gb/s
Prbs Patterns	2^n minus 1, n = 7, 10, 15, 23, 31
Mark Density	1/2, 1/4, 1/8
Pattern Invert	available for all patterns
Error Injection Rates	1e-n errors per second, n = 1 to 7 class (user's guide)
Data Output Amplitude	300 to 1800 mVpp single-ended
Data Output Amplitude Resolution	10 mV
Data Output Jitter Typical	1.1 ps rms typical at 10 Gb/s
Rise Fall Time Typical	18 ps typical (20 percent to 80 percent)
Rise Fall Time Maximum	23 ps maximum (20 percent to 80 percent)
Clock Input Frequency	0.5 to 12.5 GHz (TXCKI)
Clock Input Amplitude	0 to plus 5 dBm (630 mVpp to 1.1 Vpp)
Jitter Injection Bandwidth	DC to 100 MHz
Operating Temperature	plus 10 C to plus 40 C
Storage Temperature	minus 40 C to plus 70 C
Power Requirements	42 W external AC adaptor, 100 to 240 VAC, 47 to 63 Hz
Width	254 mm (10 in)
Depth	254 mm (10 in)
Warm Up	30 minutes (specifications after warm-up)
Remote Interface	GPIB
Literature	Keysight N4962A Serial BERT 12.5 Gb/s data sheet 5991-0719 and user's guide N4962-91021
Bandwidth	DC to 100 MHz

PARAMETER	VALUE
Data Rate	External Clock: 0.5 to 12.5 Gb/s

N4962A Specifications

PARAMETER	VALUE
Agilent Keysight N4962A Serial BERT 12.5 Gb/s	Overview
Applications	Automated 10G transceiver production BER; stressed-eye receiver tests with DC-100 MHz jitter FM; compact placement near the DUT.
Key Features	Internal synthesizer 9.90 to 11.35 Gb/s
Technical Specifications	Instrument Type: Serial BERT (PRBS generator and error detector)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to plus 70 C
Operating temperature	plus 10 C to plus 40 C
Operating Temperature	plus 10 C to plus 40 C
Power Requirements	42 W external AC adaptor, 100 to 240 VAC, 47 to 63 Hz
Width	254 mm (10 in)
Depth	254 mm (10 in)
Warm Up	30 minutes (specifications after warm-up)
Remote Interface	GPIB
Literature	Keysight N4962A Serial BERT 12.5 Gb/s data sheet 5991-0719 and user's guide N4962-91021 Notes Numeric rows from Keysight N4962A Serial BERT 12.5 Gb/s data sheet 5991-0719 and N4962A user's guide specification tables (internal/external clock, amplitude, tr/tf, temperatures). Specs valid plus 10 C to plus 40 C after 30 min warm-up with unused RF ports terminated 50 ohm.

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	Serial BERT (PRBS generator and error detector)
Series Family	Keysight N4962A / N496x serial BERT
Data Rate External Clock	0.5 to 12.5 Gb/s
Data Rate Internal Clock	9.90 to 11.35 Gb/s
Prbs Patterns	2^n minus 1, n = 7, 10, 15, 23, 31
Mark Density	1/2, 1/4, 1/8
Pattern Invert	available for all patterns
Error Injection Rates	1e-n errors per second, n = 1 to 7 class (user's guide)
Data Output Amplitude	300 to 1800 mVpp single-ended
Data Output Amplitude Resolution	10 mV
Data Output Jitter Typical	1.1 ps rms typical at 10 Gb/s
Rise Fall Time Typical	18 ps typical (20 percent to 80 percent)
Rise Fall Time Maximum	23 ps maximum (20 percent to 80 percent)
Clock Input Frequency	0.5 to 12.5 GHz (TXCKI)
Clock Input Amplitude	0 to plus 5 dBm (630 mVpp to 1.1 Vpp)
Jitter Injection Bandwidth	DC to 100 MHz
Operating Temperature	plus 10 C to plus 40 C
Storage Temperature	minus 40 C to plus 70 C
Power Requirements	42 W external AC adaptor, 100 to 240 VAC, 47 to 63 Hz
Width	254 mm (10 in)
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Warm Up	30 minutes (specifications after warm-up)
Remote Interface	GPIB
Literature	Keysight N4962A Serial BERT 12.5 Gb/s data sheet 5991-0719 and user's guide N4962-91021

Notes
Numeric rows from Keysight N4962A Serial BERT 12.5 Gb/s data sheet 5991-0719 and N4962A user's guide

specification tables (internal/external clock, amplitude, tr/tf, temperatures). Specs valid plus 10 C to plus 40 C after 30 min warm-up with unused RF ports terminated 50 ohm.

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

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