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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N4917BACA

Agilent Keysight N4917BACA Optical Receiver Stress Test Solution 100 Gb/s Ethernet The Keysight N4917BACA is the 100 Gb/s Ethernet optical receiver stress-test solution for 10G and 25G/lambda interfaces. OEM datasheet 5992-3083 and the N4917BACA BERT compliance application automate stressed-eye calibration plus receiver sensitivity and jitter-tolerance tests to IEEE 802.3-2015 clause 88 and related MSAs. Hardware is based on the M8040A BERT with AWG, optical reference transmitter, DCA sampling oscilloscope, tunable laser, and optical attenuator, and is listed as compatible with N4917BSCB 400G stress test. The Keysight N4917BACA is the 100 Gb/s Ethernet optical receiver stress-test solution for 10G and 25G/lambda interfaces. OEM datasheet 5992-3083 and the N4917BACA BERT compliance application automate stressed-eye calibration plus receiver sensitivity and jitter-tolerance tests to IEEE 802.3-2015 clause 88 and related MSAs. Hardware is based on the M8040A BERT with AWG, optical reference transmitter, DCA sampling oscilloscope, tunable laser, and optical attenuator, and is listed as compatible with N4917BSCB 400G stress test. Automated optical receiver stress, sensitivity, and jitter-tolerance test of 10GBASE, 25GBASE, and 100GBASE-LR4/ER4/SR4 modules.



MODEL

**Agilent / Keysight
N4917BACA**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N4917BACA

LISTING

<https://aumictechlabs.com/products/n4917baca-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight N4917BACA is automated software for stressed receiver sensitivity testing of optical receivers operating at 100 Gb/s. It delivers standard-compliant characterization across 10GBASE, 25GBASE, and 100GBASE variants, orchestrating a complete test system that includes BERT, arbitrary waveform generator, digital sampling oscilloscope, optical reference transmitter, tunable laser, and optical attenuator. The software automates calibration of stressed optical eyes and NRZ signals while allowing independent control of extinction ratio, vertical eye closure, jitter components (J2, J4, J9), and optical modulation amplitude. It supports both electrical loopback and DUT control interfaces for full jitter tolerance compliance and margin testing, with customizable scripting for device-specific measurement protocols.

Technical Specifications
Data rate: 100 Gb/s
Standards: IEEE 802.3ba, IEEE 802.3-2015 clause 88, and associated MSAs (CLR4, CWDM4, 4WDM, PSM4)
Optical reference transmitter: up to 25.78125 Gb/s
Tunable laser: O-band for LR4/ER4 operation, or 850 nm for SR4

Key Features
Automated stressed receiver testing with repeatable optical eye and NRZ calibration
Adjustable stress parameters: extinction ratio, vertical eye closure magnitude (VECP), signal effective coherence (SEC), J2, J4, J9, and optical modulation amplitude (OMA)
Unified instrument control via single software interface
Jitter tolerance testing with margin compliance verification
DUT control and scripting interface for customized testing and reporting

Supported Standards
10GBASE-SR/ER/LR
25GBASE-ER/-LR/-SR
100GBASE-LR4/-ER4/-SR4

Multi-Source Agreements: CLR4, CWDM4, 4WDM, PSM4

Compatibility & Integration
The N4917BACA integrates with Keysight M8040A BERT and associated test instruments including arbitrary waveform generators, digital sampling oscilloscopes, optical reference transmitters, tunable laser sources, and optical attenuators. Specific instrument compatibility and software versions require verification for optimal system performance.

N4917BACA Characteristics / Specifications

PARAMETER	VALUE
Model	N4917BACA
Instrument Type	optical receiver stress test solution
Manufacturer	Keysight Technologies
Literature	Keysight N4917BACA datasheet 5992-3083
Rate Class	10G and 25G per lambda optical interfaces
Ieee Clause	IEEE 802.3-2015 clause 88
Ten Gbase	10GBASE-SR / ER / LR
Twenty Five Gbase	25GBASE-ER / LR / SR
Hundred Gbase	100GBASE-LR4 / ER4 / SR4
Msa Class	related 100G MSAs including CLR4, CWDM4, and 4WDM as listed on the N4917BACA page
Bert Host	M8040A high-performance BERT
Awg Host	arbitrary waveform generator in the N4917BACA stack
Tx Host	optical reference transmitter
Scope Host	DCA-series digital sampling oscilloscope
Laser Host	tunable laser source
Attenuator Host	optical attenuator in the calibrated path
Sibling 400g	N4917BSCB 200/400 GbE PAM-4 optical receiver stress test
Brand Lineage	Agilent / Keysight
Form Factor	multi-instrument 100G optical stress-test solution
Ate Class	optical transceiver compliance ATE
Control Class	N4917BACA BERT compliance application
Use Case	automated 10G/25G-lambda / 100G optical receiver stress
System Role	stressed-eye calibration and receiver BER/jitter test

N4917BACA Specifications

PARAMETER	VALUE
Applications	Automated optical receiver stress, sensitivity, and jitter-tolerance test of 10GBASE, 25GBASE, and 100GBASE-LR4/ER4/SR4 modules.
Key Features	Fully automated stress-eye calibration for 10G and 25G/lambda optics
Compatible with N4917BSCB 400G optical stress test	Unified calibration, sensitivity, and jitter-tolerance workflow
Technical Specifications	Model: N4917BACA

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 N4917BACA datasheet 5992-3083 and the N4917BACA 100G optical receiver test listing. Exact stressed-eye numeric limits follow clause 88 / MSA tables and are not invented here.	

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.