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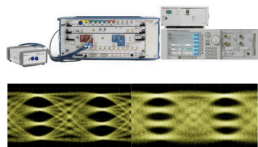
Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N4917BSCB

Agilent Keysight N4917BSCB Optical Receiver Stress Test Solution The Keysight N4917BSCB is an automated optical receiver stress-test solution for 200/400 GbE PAM-4 transceivers. OEM datasheet 5992-4040 describes unified instrument control, automated stressed-eye calibration, and compliance testing to IEEE 802.3bs/cd/db. A typical hardware stack is an M8040A BERT plus arbitrary waveform generator, electro-optical converter, and a DCA-class sampling oscilloscope used to calibrate the stressed eye at TP3. The Keysight N4917BSCB is an automated optical receiver stress-test solution for 200/400 GbE PAM-4 transceivers. OEM datasheet 5992-4040 describes unified instrument control, automated stressed-eye calibration, and compliance testing to IEEE 802.3bs/cd/db. A typical hardware stack is an M8040A BERT plus arbitrary waveform generator, electro-optical converter, and a DCA-class sampling oscilloscope used to calibrate the stressed eye at TP3. Stressed receiver sensitivity and jitter-tolerance compliance of 50/100/200/400 GbE optical transceivers in IEEE 802.3bs, 802.3cd, and 802.3db programs.



MODEL

**Agilent / Keysight
N4917BSCB**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N4917BSCB

LISTING

<https://aumictechlabs.com/products/n4917bscb-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N4917BSCB is an automated optical receiver stress test solution for characterizing network components. It enables compliance testing of optical transceivers and modules at 200

Gb/s, 400 Gb/s, and 800 Gb/s data rates, supporting 50 Gb/λ and 100 Gb/λ per-lane optical interfaces. The system automates calibration of stressed optical signals according to IEEE 802.3bs, IEEE 802.3cd, and IEEE 802.3db, eliminating manual calibration complexity. A unified software interface controls all instruments, streamlining test workflows across receiver sensitivity, jitter tolerance, and stress eye closure quaternary (SECQ) measurements. Technical Specifications

Supported Data Rates: 200 Gb/s, 400 Gb/s, 800 Gb/s **Optical Interfaces:** 50 Gb/λ, 100 Gb/λ **Modulation Format:** PAM4 **Calibration Metrics:** Outer Extinction Ratio (OER), Transmission and Dispersion Eye Closure (TDECQ), Optical Modulation Amplitude (OMA) **Performance Measurements:** Receiver sensitivity, jitter tolerance, stress eye closure quaternary (SECQ) **Standards Compliance** IEEE 802.3bs, IEEE 802.3cd, IEEE 802.3db; 400GBASE-LR8, -FR8, -DR4; 400G-FR4 MSA; 800G-SR8; 50GBASE-FR, -LR, -SR; 100GBASE-DR; 100/200/400GBASE-SR/SR2/SR4

Key Features Automated calibration of optical stressed eye with repeatable, stable performance Adjustable target calibration values for user-defined testing parameters Stress signal calibration per IEEE 802.3bs clauses 121, 122, 124, 138, 140, 167 Automated calibration per IEEE 802.3bs/cd/db clauses 121, 122, 124, 138, 139, 140

System Components The N4917BSCB integrates Keysight M8040A BERT (64 Gbaud), arbitrary waveform generator, optical reference transmitter, DCA series digital sampling oscilloscope, tunable laser source, optical attenuator, and dedicated control software for unified instrument management.

N4917BSCB Characteristics / Specifications

PARAMETER	VALUE
Model	N4917BSCB
Instrument Type	optical receiver stress test solution
Manufacturer	Keysight Technologies
Literature	Keysight N4917BSCB datasheet 5992-4040
Modulation	PAM-4 (IEEE 400GbE class; NRZ 100GBASE procedures are the prior generation)
Baud Class 26g	26.56125 Gbaud class used to keep 100G-era optics while doubling line rate
Baud Class 53g	53.125 Gbaud class on 400GBASE-DR4 flavors
Ieee Bs Standards	200GBASE-FR4/-LR4/-DR4 and 400GBASE-FR8/-LR8/-DR4 (IEEE 802.3bs)
Ieee Cd Standards	50GBASE-FR/-LR/-SR and 100GBASE-DR (IEEE 802.3cd)
Ieee Db Standards	100/200/400GBASE-SR / SR2 / SR4 (IEEE 802.3db)
Ieee Clauses	121, 122, 124, 138, 139, 140, 167 (802.3bs/cd/db as listed on 5992-4040)
Stress Plane	TP3 stressed signal as drawn on the N4917BSCB setup figure
Bert Host	M8040A BERT plus AWG for electrical signal and stress generation
Scope Host	DCA-series digital sampling oscilloscope required to calibrate the stressed eye
Clock Path	clean clock from the pattern generator, or recovered clock from the stressed signal
Metric Oer	outer extinction ratio (OER) target adjustable in debug/configure mode
Metric Tdecq	transmission and dispersion eye closure quaternary (TDECQ)
Metric Oma	optical modulation amplitude (OMA) target adjustable
Metric Secq	stress eye closure quaternary (SECQ) used in receiver performance tests
Fec Context	FEC typically performed outside the transceiver; stressed BER is not expected to be error-free
Brand Lineage	Agilent / Keysight

PARAMETER	VALUE
Sibling 100g	N4917BACA 10G and 25G/lambda optical receiver stress test
Form Factor	multi-instrument optical stress-test solution (software plus BERT/DCA/E-O stack)
Ate Class	optical transceiver compliance ATE

N4917BSCB Specifications

PARAMETER	VALUE
Key Features	Automated optical stressed-eye calibration to IEEE 802.3bs/cd/db
DUT control and scripting interface for reports	Compatible lineage with N4917BACA 10G/25G-lambda stress test
Technical Specifications	Model: N4917BSCB

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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Brand Lineage	Agilent / Keysight
Sibling 100g	N4917BACA 10G and 25G/lambda optical receiver stress test

PARAMETER	VALUE
Form Factor	multi-instrument optical stress-test solution (software plus BERT/DCA/E-0 stack)
Ate Class	optical transceiver compliance ATE

Notes
From Keysight N4917BSCB datasheet 5992-4040. Exact stressed-eye numeric limits follow the cited IEEE clauses and the Configure-tab targets; they 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.