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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 5519B

The Keysight 5519B is the higher-slew-rate sibling of 5519A in the 5530 Laser Calibration System. OEM 5519A/B data sheet lists the same 6 mm beam, plus or minus 0.1 ppm (plus or minus 0.02 ppm calibrated) wavelength accuracy, less than 1 mW beam power, and 100-240 Vac supply, with reference frequency 3.4 to 4.0 MHz instead of 2.4 to 3.0 MHz. 5530 machine-tool calibration when optic slew rate requires the higher 3.4-4.0 MHz reference. 3.4-4.0 MHz reference for higher slew rate than 5519A Instrument Type: HeNe laser head with built-in receiver and power supply Agilent Keysight 5519B HeNe Laser Head 3.4 to 4.0 MHz The Keysight 5519B is the higher-slew-rate sibling of 5519A in the 5530 Laser Calibration System. OEM 5519A/B data sheet lists the same 6 mm beam, plus or minus 0.1 ppm (plus or minus 0.02 ppm calibrated) wavelength accuracy, less than 1 mW beam power, and 100-240 Vac supply, with reference frequency 3.4 to 4.0 MHz instead of 2.4 to 3.0 MHz. 5530 machine-tool calibration when optic slew rate requires the higher 3.4-4.0 MHz reference. 3.4-4.0 MHz reference for higher slew rate than 5519A

**MODEL****Agilent / Keysight
5519B****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****5519B****LISTING**<https://aumictechlabs.com/products/5519b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight 5519B is a two-frequency Helium-Neon laser head engineered for precision displacement measurement and calibration in machine tool, CMM, and linear metrology applications. This continuous-wave HeNe laser delivers stable, accurate output across thermal

cycles and operational lifetime by employing dual-frequency technique to suppress beam intensity fluctuation errors. The 5519B integrates into the Keysight 5530 Laser Calibration System and Agilent 5529A/55292A Dynamic Calibrator platforms, providing Class 2 laser output with exceptional wavelength stability and repeatability.

Technical Specifications

Laser Type: Helium-Neon (HeNe), continuous, two-frequency
Wavelength: 632.9913540 nm (vacuum, nominal)
Wavelength Accuracy: ± 0.1 ppm (standard); ± 0.02 ppm (MIL-STD 45662 calibrated)
Wavelength Stability: ± 0.002 ppm over 1 hour; ± 0.02 ppm over lifetime
Output Power: 180 μ W to 1 mW
Beam Diameter: 6 mm (0.24 in)
Reference Frequency Output: 3.4 MHz to 4.0 MHz
Laser Classification: Class 2 (21 CFR 1040.10/1040.11, IEC 60825-1:2007)
Maximum Axis Velocity: 1 m/s (linear optics); 0.5 m/s (plane mirror); 0.25 m/s (high-resolution plane mirror)
Electrical & Environmental Power: 100–240 VAC, 50/60 Hz; alternatives available at 110–120 VAC or 220–240 VAC (48–66 Hz, 400 Hz)
Warm-up Time: <10 minutes
Operating Power Dissipation: 23 W (operation); 33 W (warm-up); 50 W
Operating Temperature: 0 to 40 °C
Weight: 5.5 kg (12 lb)
Clearance Required: 10.16 cm (4 in) beyond rear for cabling

Key Features

Two-frequency laser architecture minimizes systematic errors from intensity fluctuations
Exceptional wavelength stability - ± 0.002 ppm short-term enables sub-micron repeatability
Low thermal drift enables extended calibration intervals in production environments
Class 2 laser safety classification for personnel-proximate industrial use

Typical Applications

Machine tool accuracy verification and periodic recalibration
Coordinate measuring machine (CMM) performance validation
Linear displacement and position measurement systems
Precision optical calibration in manufacturing metrology

5519B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	HeNe laser head with built-in receiver and power supply
Series Family	Keysight 5519A/B / 5530 laser calibration
Laser Type	helium-neon, continuous, two-frequency
Beam Diameter Typical	6 mm visible typical
Wavelength Accuracy Standard	plus or minus 0.1 ppm
Wavelength Accuracy Calibrated	plus or minus 0.02 ppm if calibrated
Reference Frequency	3.4 MHz to 4.0 MHz
Maximum Beam Power Output	less than 1 mW
Line Voltage	100 to 240 Vac, 50 to 60 Hz
Sibling 5519A Reference	2.4 MHz to 3.0 MHz
System	Keysight 5530 Laser Calibration System component
Laser Class	Class II HeNe
Form Factor	complete laser system
Documentation	Keysight 5519A/B HeNe Laser System data sheet
Application	high slew-rate machine-tool calibration
Receiver	built-in optical receiver
Power Supply	built-in AC supply
Slew Rate Note	3.4-4.0 MHz reference yields higher allowable optic velocity than 5519A
Related 5517D	3.4-4.0 MHz transducer head (needs 10884B, not AC mains)
Operating Environment	per 5519A/B data sheet
Wavelength Family	633 nm HeNe
Verification	5519A and 5519B differ only in reference-frequency band on the OEM sheet

5519B Specifications

PARAMETER	VALUE
Agilent Keysight 5519B HeNe Laser Head 3.4 to 4.0 MHz	Overview
Applications	5530 machine-tool calibration when optic slew rate requires the higher 3.4-4.0 MHz reference.
plus or minus 0.1 ppm standard accuracy	Same mechanical system as 5519A
Technical Specifications	Instrument Type: HeNe laser head with built-in receiver and power supply
Notes	Numeric rows from Keysight 5519A/B HeNe Laser System data sheet (3.4-4.0 MHz reference is the sole listed difference vs 5519A).

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 On Power: maximum beam power less than 1 mW Class II	

Notes

Numeric rows from Keysight 5519A/B HeNe Laser System data sheet (3.4-4.0 MHz reference is the sole listed difference vs 5519A).

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.