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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 5519A

Agilent Keysight 5519A HeNe Laser Head 2.4 to 3.0 MHz The Keysight 5519A isaHeNe two-frequency laser head with built-in receiver and AC power supply for the 5530 Laser Calibration System. OEM 5519A/B data sheet lists 6 mm beam diameter, wavelength accuracy plus or minus 0.1 ppm (plus or minus 0.02 ppm if calibrated), reference frequency 2.4 to 3.0 MHz, maximum beam power less than 1 mW, and 100 to 240 Vac 50 to 60 Hz. Machine-tool laser calibration (5530) where 5519A slew rate (2.4-3.0 MHz reference) is sufficient. The Keysight 5519A isaHeNe two-frequency laser head with built-in receiver and AC power supply for the 5530 Laser Calibration System. OEM 5519A/B data sheet lists 6 mm beam diameter, wavelength accuracy plus or minus 0.1 ppm (plus or minus 0.02 ppm if calibrated), reference frequency 2.4 to 3.0 MHz, maximum beam power less than 1 mW, and 100 to 240 Vac 50 to 60 Hz. Machine-tool laser calibration (5530) where 5519A slew rate (2.4-3.0 MHz reference) is sufficient. Complete AC-powered laser with built-in receiver



MODEL

**Agilent / Keysight
5519A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

5519A

LISTING

<https://aumictechlabs.com/products/5519a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 5519A is a helium-neon two-frequency laser head engineered for high-precision dimensional metrology, machine tool calibration, and coordinate measuring machine verification. This Class II laser source delivers 180 μ W to 1 mW of continuous-wave output at 633 nm, with vacuum wavelength accuracy of ± 0.1 ppm (± 0.02 ppm when MIL-STD 45662 calibrated)

and 1-hour stability of ± 0.002 ppm. The dual-frequency architecture minimizes beam intensity fluctuation effects, enabling reliable heterodyne displacement measurement across multiple optical configurations. Integrated control electronics and power supply support 100–240 Vac operation with 180 μ W Beam Diameter: 6 mm typical (0.24 in) Laser Class: Class II Reference Frequency Output: 2.4–3.0 MHz Maximum Axis Velocity (Linear Optics): ± 0.7 m/s (± 28 in/s) Maximum Axis Velocity (Plane Mirror Optics): ± 0.35 m/s (± 14 in/s) Maximum Axis Velocity (High Resolution Plane Mirror): ± 0.18 m/s (± 7 in/s) Warm-up Time: < 10 minutes Operating Temperature: 0–40 °C Power Supply: 100–240 Vac, 50–60 Hz; also 110–120 Vac (48–66 Hz or 400 Hz); 220–240 Vac (48–66 Hz) Heat Dissipation (Operating): 23 W typical Heat Dissipation (Warm-up): 35–50 W Physical Weight: 5.5 kg (12 lb) Rear Clearance Required: 10.16 cm (4 in) Key Features Two-frequency laser design eliminates beam intensity fluctuation errors Integrated control unit with built-in receiver and power supply Long-life helium-neon tube for extended field deployment Exceptional short-term and lifetime wavelength stability Multiple optical interface options for velocity range optimization Typical Applications Precision dimensional metrology and machine tool offset verification Coordinate measuring machine (CMM) system calibration Linear and rotary axis displacement measurement Laser interferometry-based calibration workflows Compatibility & Integration The 5519A is the laser head component within Keysight 5529A/5529B and 5530 dynamic calibrator systems. The 5519B variant provides higher reference frequency output (3.4–4.0 MHz) for applications requiring maximum slew rates.

5519A 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	2.4 MHz to 3.0 MHz
Maximum Beam Power Output	less than 1 mW
Line Voltage	100 to 240 Vac, 50 to 60 Hz
Sibling 5519B Reference	3.4 MHz to 4.0 MHz
System	Keysight 5530 Laser Calibration System component
Laser Class	Class II HeNe
Form Factor	complete laser system (notabare 5517 transducer head)
Documentation	Keysight 5519A/B HeNe Laser System data sheet
Application	machine-tool geometric calibration
Receiver	built-in optical receiver
Power Supply	built-in, plugs into AC mains
Slew Rate Note	higher reference frequency allows higher measurement slew rate
Operating Environment	per 5519A/B data sheet
Wavelength Family	633 nm HeNe
Stability Family	5517-class 2 ppb / 1 hour and 20 ppb lifetime stated on 5517 fact sheet; confirm 5519A sheet for identical stability rows
Verification	use the 5519A/B data sheet for warranted vacuum wavelength

5519A Specifications

PARAMETER	VALUE
Agilent Keysight 5519A HeNe Laser Head 2.4 to 3.0 MHz	Overview
Applications	Machine-tool laser calibration (5530) where 5519A slew rate (2.4-3.0 MHz reference) is sufficient.
Technical Specifications	Instrument Type: HeNe laser head with built-in receiver and power supply

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	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	2.4 MHz to 3.0 MHz
Maximum Beam Power Output	less than 1 mW
Line Voltage	100 to 240 Vac, 50 to 60 Hz
Sibling 5519B Reference	3.4 MHz to 4.0 MHz
System	Keysight 5530 Laser Calibration System component
Laser Class	Class II HeNe
Form Factor	complete laser system (notabare 5517 transducer head)
Documentation	Keysight 5519A/B HeNe Laser System data sheet
Application	machine-tool geometric calibration
Receiver	built-in optical receiver
Power Supply	built-in, plugs into AC mains
Slew Rate Note	higher reference frequency allows higher measurement slew rate
Operating Environment	per 5519A/B data sheet
Wavelength Family	633 nm HeNe
Stability Family	5517-class 2 ppb / 1 hour and 20 ppb lifetime stated on 5517 fact sheet; confirm 5519A sheet for identical stability rows
Verification	use the 5519A/B data sheet for warranted vacuum wavelength
Notes On 5517: 5519A is the AC-powered 5530 head; 5517C shares 2.4-3.0 MHz reference but needs 10884B supply	
Notes	
6 mm beam, plus or minus 0.1/0.02 ppm, 2.4-3.0 MHz reference, less than 1 mW, and 100-240 Vac from Keysight 5519A/B HeNe Laser System data sheet. 5519B differs only in 3.4-4.0 MHz reference.	

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>

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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.