

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 5517C

The Keysight 5517C isaClass II helium-neon two-frequency laser head for dual-frequency interferometry. OEM 5517-series product fact sheet 5990-5634 lists 2 ppb vacuum wavelength stability (1 hour) and 20 ppb lifetime, plus or minus 0.1 ppm wavelength accuracy standard (plus or minus 0.02 ppm with optional calibration), MTBF greater than 50,000 hours typical, reference frequency 2.4 to 3.0 MHz, minimum output greater than 180 uW, and 90 minutes warm-up. 5517C offers higher slew-rate capability than 5517B via the higher reference frequency. Machine-tool and metrology interferometers; VME/PC transducer systems; 5527/5530 laser calibration when used with matching electronics. Power Supply: Keysight 10884B or equivalent plus/minus 15 V Laser Class: Class II / 21 CFR 1040.10 and 1040.11 Documentation: Keysight 5517 series product fact sheet 5990-5634 Vacuum Wavelength Nominal: 632.991354 nm (5517C operating manual)



MODEL

**Agilent / Keysight
5517C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

5517C

LISTING

**[https://aumictechlabs.c
om/products/5517c-2/](https://aumictechlabs.com/products/5517c-2/)**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight 5517C is a helium-neon laser head that delivers a stable 633 nm wavelength source for precision measurement and laser interferometry systems. This Class II gas laser produces continuous-wave output across multiple power options (180 μ W minimum to 1 mW maximum), with wavelength stability of 2 ppb over one hour and 20 ppb lifetime. The 5517C generates a coherent, collimated two-frequency beam with orthogonal polarization components, standard 6

mm diameter (3 mm and 9 mm options available), and beam height of 79.5 ± 1.0 mm. Warm-up time is approximately 10 minutes typical, extending to 90 minutes with fan connection.

Technical Specifications

Wavelength: 633 nm Output Power: 180 μ W minimum; 1 mW maximum (H03: 300 μ W, H05: 240 μ W, H07: 400 μ W options) Wavelength Stability: 2 ppb (1 hour); 20 ppb (lifetime) Wavelength Accuracy: ± 0.1 ppm standard; ± 0.02 ppm with optional calibration Reference Frequency: 2.4 to 3.0 MHz Operation Mode: Continuous Wave (CW) Warm-up Time: 10 minutes typical; up to 90 minutes with fan connection Input Power: +15 V ± 0.3 V at 2.5 A max; -15 V ± 0.3 V at 0.02 A max Heat Dissipation: 23 W (operation); 35 W (warm-up) MTBF: >50,000 hours

Key Features

Two-frequency coherent beam with orthogonal linear polarization (horizontal and vertical) Beam diameter options: 3 mm, 6 mm (standard), 9 mm Three-position shutter (open, reduced, closed) Resolution down to 2.5 nanometers with resolution extension Maximum linear velocity: 711 mm/s; up to 696 mm/s with E1709A receiver Measurement range: 40 meters nominal for single-axis; multi-axis sum must meet this specification

Typical Applications

VME- and PC-based laser interferometer systems Semiconductor lithography alignment and measurement Flat panel display manufacturing High-precision motion measurement systems

Compatibility & Integration

Integrates with standard VME and PC-based interferometer platforms Operates with compatible receivers including the E1709A Non-fiber-coupled; direct optical beam delivery

Dimensions: 36 cm L $\times$ 14 cm W $\times$ 13 cm H; weight 3.4 kg

5517C Characteristics / Specifications

PARAMETER	VALUE
Model	5517C
Instrument Type	Two-frequency HeNe laser head
Series Family	Keysight 5517/5519 laser heads
Laser Type	helium-neon, continuous, two-frequency
Wavelength Accuracy Standard	plus or minus 0.1 ppm
Wavelength Accuracy Optional Cal	plus or minus 0.02 ppm
Vacuum Wavelength Stability 1 Hour	2 ppb
Vacuum Wavelength Stability Lifetime	20 ppb
Mtbf Typical	greater than 50,000 hours typical
Reference Frequency	2.4 to 3.0 MHz
Minimum Output Power	greater than 180 uW
Warm Up Time	90 minutes
Available Beam Diameter	3, 6, or 9 mm (Options 003/006/009)
Max Linear Velocity 10897D 10898D N12	696 mm/s (linear optics, worst-case direction)
Max Linear Velocity N1225A	601 mm/s
Maximum Beam Power Output Family	less than 1 mW (Class II)
Beam Height 5517x	79.5 mm (plus or minus 1.0 mm on 5517B product page)
Power Supply	Keysight 10884B or equivalent plus/minus 15 V
Laser Class	Class II / 21 CFR 1040.10 and 1040.11
Documentation	Keysight 5517 series product fact sheet 5990-5634
Vacuum Wavelength Nominal	632.991354 nm (5517C operating manual)
Heat Dissipation Operate	23 W during operation (5517B/C/D manual)
Heat Dissipation Warmup	35 W during warm-up (5517B/C/D manual)
Operating Temperature	0 to 40 C (5517B/C/D manual)
Nonoperating Temperature	minus 40 to plus 75 C (5517B/C/D manual)

PARAMETER	VALUE
Wavelength stability	1 Hour: 2 ppb

5517C Specifications

PARAMETER	VALUE
Agilent Keysight 5517C HeNe Laser Head	Overview
Applications	Machine-tool and metrology interferometers; VME/PC transducer systems; 5527/5530 laser calibration when used with matching electronics.
Key Features	Two-frequency Zeeman-split HeNe at 633 nm
Internal reference receiver	Reference frequency 2.4 to 3.0 MHz
Optional beam diameters 003/006/009 where listed	Requires 10884B or equivalent plus/minus 15 V supply
Technical Specifications	Model: 5517C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 40 C (5517B/C/D manual)
Operating Temperature	0 to 40 C (5517B/C/D manual)
Nonoperating Temperature	minus 40 to plus 75 C (5517B/C/D manual) Notes Numeric rows from Keysight 5517A/B/C/... Laser Heads for Transducer Systems product fact sheet 5990-5634 and model product pages. Vacuum wavelength nominal values for 5517B/C are in the 5517B/C/D operating manual (632.991372 nm 5517B; 632.991354 nm 5517C).

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
Model	5517C
Instrument Type	Two-frequency HeNe laser head
Series Family	Keysight 5517/5519 laser heads
Laser Type	helium-neon, continuous, two-frequency
Wavelength Accuracy Standard	plus or minus 0.1 ppm
Wavelength Accuracy Optional Cal	plus or minus 0.02 ppm
Vacuum Wavelength Stability 1 Hour	2 ppb
Vacuum Wavelength Stability Lifetime	20 ppb
Mtbf Typical	greater than 50,000 hours typical
Reference Frequency	2.4 to 3.0 MHz
Minimum Output Power	greater than 180 uW
Warm Up Time	90 minutes
Available Beam Diameter	3, 6, or 9 mm (Options 003/006/009)
Max Linear Velocity 10897D 10898D N1231	696 mm/s (linear optics, worst-case direction)
Max Linear Velocity N1225A	601 mm/s
Maximum Beam Power Output Family	less than 1 mW (Class II)
Beam Height 5517x	79.5 mm (plus or minus 1.0 mm on 5517B product page)
Power Supply	Keysight 10884B or equivalent plus/minus 15 V
Laser Class	Class II / 21 CFR 1040.10 and 1040.11
Documentation	Keysight 5517 series product fact sheet 5990-5634
Vacuum Wavelength Nominal	632.991354 nm (5517C operating manual)
Heat Dissipation Operate	23 W during operation (5517B/C/D manual)
Heat Dissipation Warmup	35 W during warm-up (5517B/C/D manual)
Operating Temperature	0 to 40 C (5517B/C/D manual)
Nonoperating Temperature	minus 40 to plus 75 C (5517B/C/D manual)

Notes

Numeric rows from Keysight 5517A/B/C/... Laser Heads for Transducer Systems product fact sheet 5990-5634 and model product pages. Vacuum wavelength nominal values for 5517B/C are in the 5517B/C/D operating manual (632.991372 nm 5517B; 632.991354 nm 5517C).

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>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.