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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 5517GL

HP Agilent Keysight 5517GL Low Heat HeNe Laser Head The Keysight 5517GL is a Class II helium-neon two-frequency laser head in the 5517xL low-heat family. OEM 5517 series product fact sheet 5990-5634 lists reference frequency greater than or equal to 7.2 MHz, minimum output greater than 168 uW, 45 minute warm-up with fan on the vent body, 2 ppb vacuum wavelength stability (1 hour) and 20 ppb lifetime, plus or minus 0.1 ppm accuracy standard (plus or minus 0.02 ppm with optional calibration), and MTBF greater than 50,000 hours typical. The Keysight 5517GL is a Class II helium-neon two-frequency laser head in the 5517xL low-heat family. OEM 5517 series product fact sheet 5990-5634 lists reference frequency greater than or equal to 7.2 MHz, minimum output greater than 168 uW, 45 minute warm-up with fan on the vent body, 2 ppb vacuum wavelength stability (1 hour) and 20 ppb lifetime, plus or minus 0.1 ppm accuracy standard (plus or minus 0.02 ppm with optional calibration), and MTBF greater than 50,000 hours typical. Machine-tool and semiconductor interferometers needing higher slew rate than 5517C with forced-air thermal management on the L-series vented cover.

**MODEL****Agilent / Keysight
5517GL****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****5517GL****LISTING**<https://aumictechlabs.com/products/5517gl-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 5517GL is a stabilized Helium-Neon (HeNe) laser head engineered for high-precision metrology in laser interferometer systems handling faster motion velocities. Operating at

632.8 nm, it delivers coherent, collimated output for demanding distance and position measurement applications in semiconductor manufacturing and flat-panel display production.

Technical Specifications

Laser Type: Helium-Neon (HeNe) **Wavelength:** 632.8 nm **Output Power:** 168 μ W minimum (120 μ W after 3 years); maximum 1 mW; higher power option available **Wavelength Stability (1 hour, vacuum):** 2 ppb **Wavelength Stability (lifetime):** 20 ppb **Wavelength Accuracy (standard):** ± 0.1 ppm **Wavelength Accuracy (optional calibration):** ± 0.02 ppm **Reference Frequency:** ≥ 7.2 MHz **Beam Height:** 80.8 ± 1.0 mm **Beam Diameter:** 9 mm (Option 009) **Maximum Linear Velocity:** 2.1 m/s (with linear optics); 2215 mm/s (with E1709A electronics/receivers) **Warm-up Time:** 45 minutes (fan and exhaust to vented cover); 90 minutes (fan to vent body) **MTBF:** >50,000 hours typical **Input Power:** +15 V ± 0.3 V at 2.2 A maximum; -15 V ± 0.3 V at 0.03 A maximum **Weight:** 3.2 kg

Key Features

Exceptional wavelength stability ensures measurement accuracy across extended operational periods Dual-calibration option delivers ± 0.02 ppm accuracy for precision-critical metrology High-velocity capability supports advanced semiconductor lithography and flat-panel inspection systems Rapid stabilization reduces setup time in production environments Long MTBF rating minimizes unplanned downtime

Typical Applications

Semiconductor lithography systems requiring rapid stage motion Flat-panel display manufacturing and inspection High-speed laser interferometry VME and PC-based measurement automation

Compatibility & Integration

The 5517GL integrates with VME and PC-based laser interferometer systems. Optimal performance at maximum velocity specifications requires the E1709A electronics package and compatible receivers. Power delivery demands a dedicated ± 15 V supply; Agilent 10884B or equivalent is recommended.

5517GL Characteristics / Specifications

PARAMETER	VALUE
Model	5517GL
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	greater than or equal to 7.2 MHz
Minimum Output Power	greater than 168 uW
Warm Up Time	45 minutes (fan connected to vent body)
Available Beam Diameter	9 mm (must be ordered with 009)
Max Linear Velocity 10897D 10898D N12	1297 mm/s (requires E1709A receiver)
Max Linear Velocity N1225A	2120 mm/s
Max Linear Velocity 10898D N1231 Alt	2215 mm/s (requires E1709A receiver)
Maximum Beam Power Output Family	less than 1 mW (Class II)
Beam Height 5517xL	80.8 mm
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 Family	632.99137 nm class (5517CL data sheet 632.99137 nm)
Airflow 5517CL Class	4 m/s min exiting 50 mm duct (5517CL data sheet)
Enclosure 5517CL Class	IP10 per IEC 529 (5517CL data sheet)
Mass 5517CL Class	3.2 kg (5517CL data sheet)

PARAMETER	VALUE
Plus 15 V Current 5517CL	2.2 A maximum (5517CL data sheet)
Minus 15 V Current 5517CL	0.02 A maximum (5517CL data sheet)
Wavelength stability	1 Hour: 2 ppb

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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Mass 5517CL Class	3.2 kg (5517CL data sheet)
Plus 15 V Current 5517CL	2.2 A maximum (5517CL data sheet)

PARAMETER	VALUE
Minus 15 V Current 5517CL	0.02 A maximum (5517CL data sheet)

Notes

Numeric rows from Keysight 5517A/B/C/CL/D/DL/EL/FL/GL Laser Heads for Transducer Systems product fact sheet 5990-5634. 5517CL electrical, mass, airflow, and vacuum wavelength rows also from the 5517CL Laser Head data sheet. High-velocity rows marked with E1709A on the fact sheet require that receiver.

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.