

# 5519A/B HeNe Laser System

With Built in Receiver and Power Supply

## Product Description

The Keysight 5519A/B Laser Head is a component of the Keysight 5530 Laser Calibration System, incorporates a Helium-Neon (HeNe) laser with a beam diameter of 6 mm. It has a wavelength accuracy of  $\pm 0.1$  ppm ( $\pm 0.02$  ppm if calibrated).

This is a Class II Laser Product conforming to U.S. National Center for Devices and Radiological Health Regulations 21 CFR 1040.10 and 1040.11.

## Proven technology

The Keysight 5519A/B uses Keysight's two-frequency laser technique that virtually eliminates the problems common to other laser designs, which result from beam intensity changes. The laser head uses a proven long-life tube.

The Keysight 5519A and Keysight 5519B differs only in their reference frequency output. The Keysight 5519A reference frequency output is 2.4 MHz to 3.0 MHz. The Keysight 5519B reference frequency output is 3.4 MHz to 4.0 MHz. The higher the reference frequency, the higher the slew rate at which the measurement optic can move.

The laser is a complete system with a built-in receiver and its own power supply that plugs directly into an AC power outlet.

## Machine calibration – Keysight 5530 laser calibration system

The Keysight 5519A/B is configured with appropriate optics and system electronics to build a laser calibration system that meets the unique physical layout and measurement requirements of individual applications. The laser accuracy is ideal for machine calibration applications.

For more details on Keysight 5530 Laser Calibration systems, components and ordering information please visit [www.keysight.com/find/5530](http://www.keysight.com/find/5530).



### 5530 Laser calibration system

Demonstrate Conformance to Key International Standards

- NMTBA
- ANSI B5.54/B5.57
- VDI 3441/2617
- GB 10931-89
- GB/T 17421.2-2000
- BSI 3800
- JIS B6330
- ISO 230-2 2014

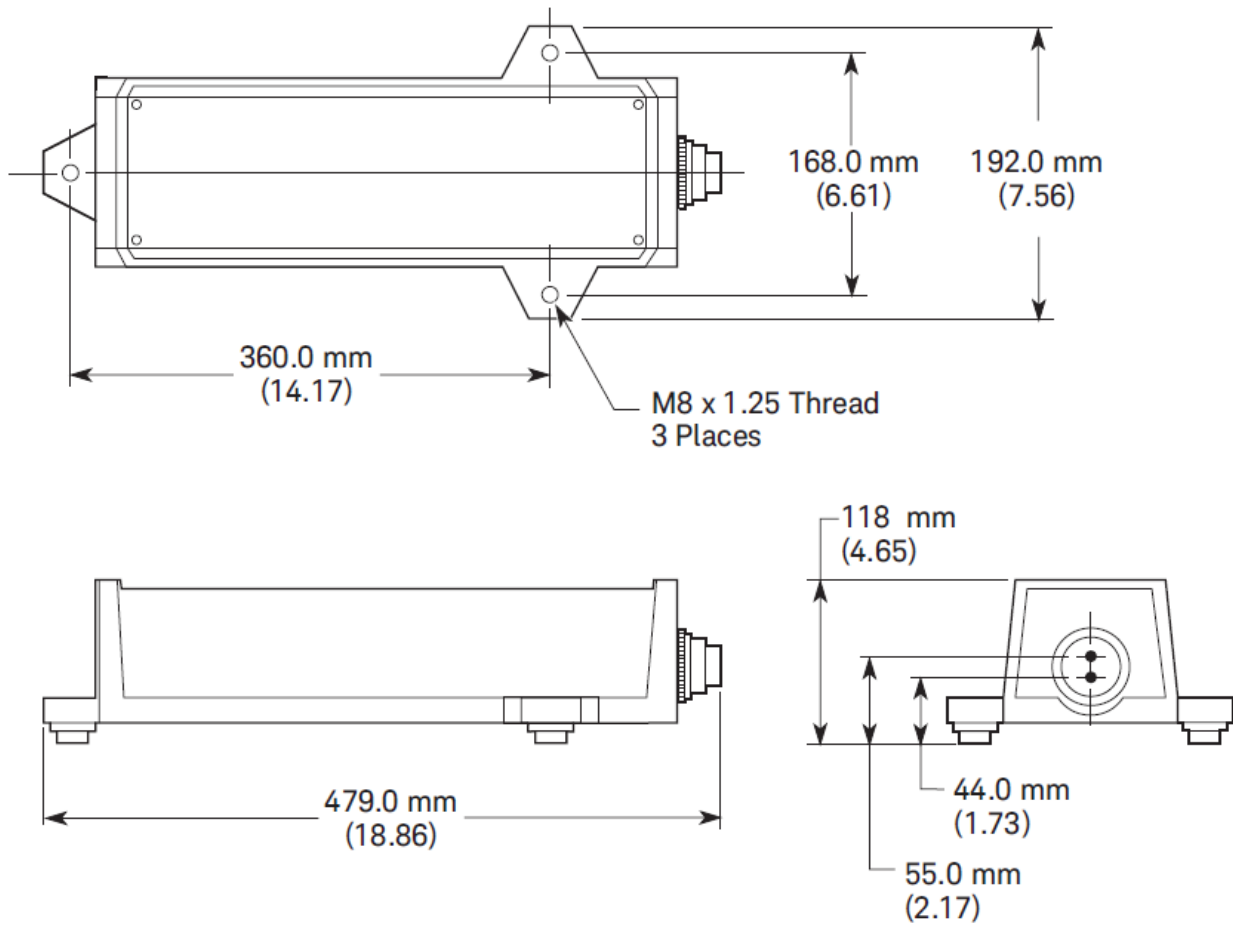
## Specifications

Laser beam characteristics	Specifications
Type	Helium-neon, continuous, two frequency
Vacuum wavelength (nominal)	632.9913540 nm
Vacuum wavelength accuracy (3 sigma, lifetime)	± 0.1 ppm
Vacuum wavelength stability (typical 1 hour)	± 0.002 ppm
Vacuum wavelength stability (typical lifetime)	± 0.02 ppm
Beam diameter (visible typical)	6 mm
Maximum beam power output	< 1 mW
Minimum beam power output at 3 years	> 180 microwatts

Power characteristics	Specifications
Warm-Up Time	less than 10 minutes
Power requirements	100 to 240 Vac, 50 to 60 Hz
Heat dissipation:	23 Watts (during operation) 35 Watts (during warm-up)

Output characteristic	Specifications
Reference frequency	5519A: 2.4 MHz to 3.0 MHz 5519B: 3.4 MHz to 4.0 MHz

Physical characteristics	Specifications
Dimensions	47.9 x 19.2 x 11.8 cm (see detail dimensions below)
Weight	5.8 Kg
Clearance required for cabling	10 cm (4 in) beyond rear panel.





**LASER RADIATION**  
 DO NOT STARE INTO BEAM  
 CLASS 2 LASER PRODUCT  
 PER IEC 60825-1:2007

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Maximum Output: 1mW  
 Continuous Wave:  $\lambda = 633 \text{ nm}$   
 Laser Medium: Helium Neon

## General and environmental characteristics

Environmental conditions	Specifications
Magnetic field strength (non-operating)	Does not exceed 5.25 milligauss at a distance of 460 cm (15 ft) from any point on the surface of the packaged laser head.

### Conformity of standards and safety regulations

The Keysight 5519A/B Laser Head complies with the essential requirements of the following applicable European Directives, and carries the CE marking accordingly:

- EMC Directive
- Low Voltage Directive

and conforms with the product standards and safety regulations.

Please find the DECLARATION OF CONFORMITY of the Keysight 5519A/B to have the latest reference from the link below: <https://regulations.about.keysight.com/DoC/>.

## Options (at purchase)

Option number	Applicable models	Description
A6J	All	ANSI Z540-1-1994 Calibration
C01	All	Long range
AV4	All	User's manual
9XX	All	<p>Power cords option</p> <p>*) for destination country</p> <p>900: Power Cord - UK, Singapore, Malaysia, Hong Kong</p> <p>901: Power cord - Australia and New Zealand</p> <p>902: Power cord - Continental Europe</p> <p>903: Power cord - United States and Canada (120V)</p> <p>906: Power cord - Switzerland</p> <p>912: Power cord - Denmark</p> <p>917: Power cord - India</p> <p>918: Power cord - Japan</p> <p>919: Power cord - Israel</p> <p>920: Power cord – Argentina</p> <p>921: Power cord - Chile</p> <p>922: Power Cord - China</p> <p>927: Power cord - Thailand</p>
<p>*) Last two digits should refer to the list of destination country</p>		

Learn more at: [www.keysight.com](http://www.keysight.com)

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: [www.keysight.com/find/contactus](http://www.keysight.com/find/contactus)

