

## Keysight 5517A, 5517B, 5517C, 5517CL, 5517D, 5517DL, 5517EL, 5517FL, 5517GL Laser Heads for Transducer Systems

The Keysight Technologies, Inc. 5517 series are Class II helium-neon lasers sources that provide highly stable and accurate 633 nm wavelength light for precision dual-frequency interferometry. A variety of Zeeman split frequencies, beam size, power levels, and special options are available to meet your systems requirements. Keysight lasers are known for their reliability, with a mean time between failures (MTBF) of greater than 50,000 hours typical.



5517C laser head

### Key features

- 2 ppb vacuum wavelength stability (1 hour); 20 ppb (lifetime)
- $\pm 0.1$  ppm wavelength accuracy standard;  $\pm 0.02$  ppm with optional calibration
- MTBF > 50,000 hours (typical)

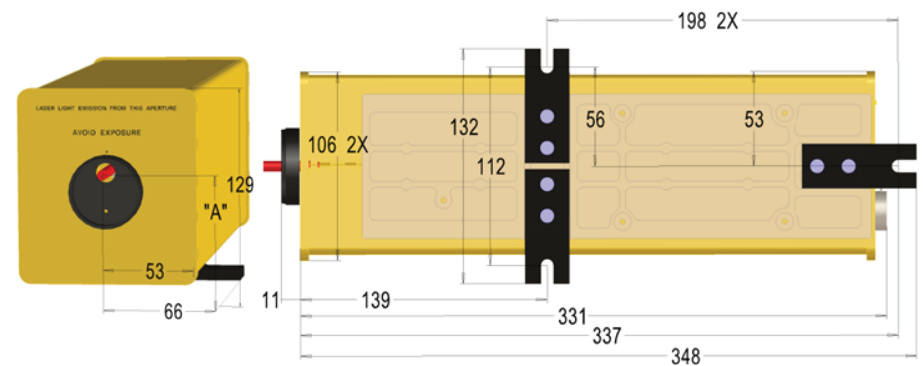
Model number <sup>3</sup>	Maximum linear velocity (mm/s) <sup>1</sup>			Reference frequency (MHz)	Min output power (μW)	Warm-up time (min)	Available laser beam diameter (mm)
	10897D	10898D N1231A/B	N1225A				
5517A	411		316	1.5 to 2.0	> 180	< 10	6
5517B	538		443	1.9 to 2.4	> 120	90	6
5517C	696		601	2.4 to 3.0	> 180	90	3, 6, 9
5517CL				2.4 to 3.0	> 180	45 <sup>5</sup>	6
5517D	1012		918	3.4 to 4.0	> 180	90	6, 9
5517DL	1329 <sup>4</sup>		1234	> = 4.4	> 180	45 <sup>5</sup>	6, 9
5517EL	1740 <sup>4</sup>	1772 <sup>4</sup>	1677	> = 5.8	> 65	45 <sup>5</sup>	6
5517FL	1361 <sup>4</sup>	2152 <sup>4</sup>	2057	> = 7.0	> 65	45 <sup>5</sup>	6, 9
5517GL <sup>2</sup>	1297 <sup>4</sup>	2215 <sup>4</sup>	2120	> = 7.2	> 168	45 <sup>5</sup>	9

1. Values are for worst case direction of travel (higher velocity generally possible in opposite direction), and for using linear (single pass,  $\lambda/2$  optical resolution) optics.
2. Must be ordered with option 009.
3. Each laser head requires power supply. Use either an Keysight 10884B supply or equivalent to provide 15 V power to the laser head and receivers.
4. Requires use of E1709A receiver to obtain listed velocity.
5. Can be achieved if fan is connected to the vent body.

### Option keys

Options	Description
003	3 mm output beam diameter
006	6 mm output beam diameter
009	9 mm output beam diameter

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



5517x/xL (except 5517A) Laser heads outside dimensions (5517xL cooling duct and perforations not shown). Beam height "A" is 79.5 mm for 5517x heads and 80.8 mm for 5517xL heads.

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Keysight Services helps you improve productivity and product quality with our comprehensive service offerings of one-stop calibration, repair, asset management, technology refresh, consulting, training, and more.