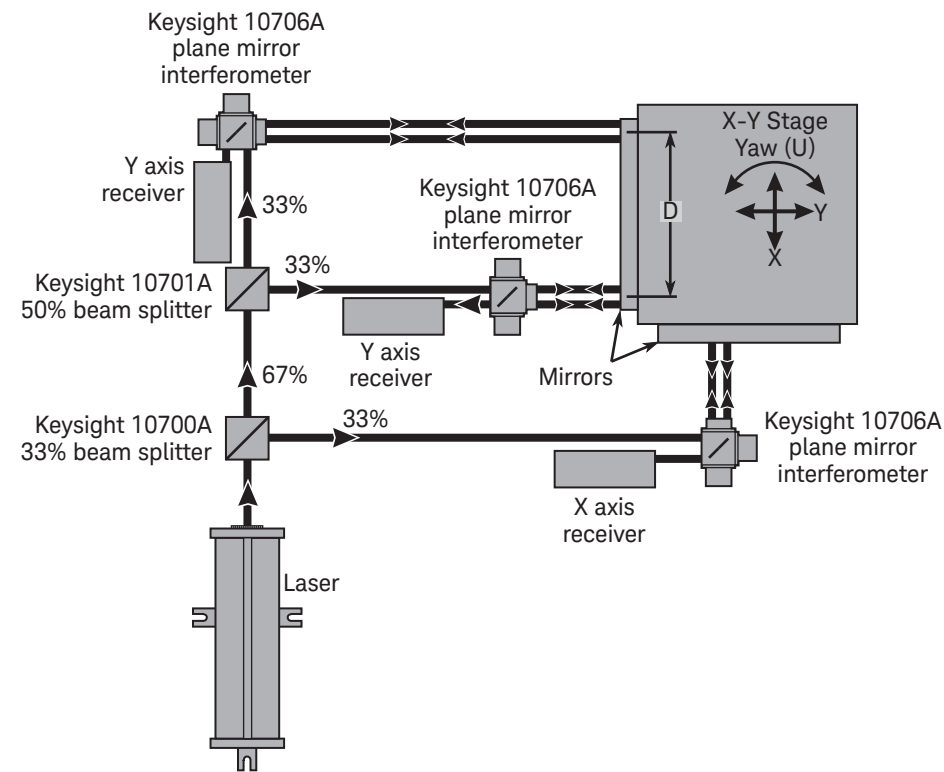


# Keysight Laser Interferometer Systems

Keysight Technologies, Inc. laser Interferometer Systems enable precise measurement of position changes in many application areas. Keysight offers multiple product choices in all six system component areas (laser heads, directing optics, measurement optics, electronics and receivers, cables and compensation), allowing systems to easily be tailored to specific application requirements. Our complete documentation, along with factory applications support, help guide designers through some of the complexities associated with precision measurement systems.

## Yaw measurement of X-Y stage



Typical multi-axis laser interferometer system

## Key features

- Long life laser source (> 50,000 hrs MTBF)
- High stability laser source reduces measurement uncertainty
- High reliability and exceptional repeatability reduce downtime
- Multiple choices for all system components
- Extensive optics guide for system designers
- Flexible hardware interface enables easy connection to user systems
- Software APIs and example programs ease creation of operating software

Component type	Model number	Selection impacts	Pub# for more information
Laser heads	5517A, 5517B, 5517BL, 5517C, 5517CL, 5517D, 5517DL, 5517EL, 5517FL, 5517GL, 5519A/B, N1211A, N1212A, N1212B	Maximum stage velocity	5964-6190E: Laser and optics - Data Sheet 5990-5634EN: 5517x lasers - Product Fact Sheet 5990-9188EN: N1211A/N1212x - Product Fact Sheet
Beam directing optics and mounts	10567A, 10700A/B/C, 10700AV, 10701A, 10701A-C04, 10707A, 10710A/B, 10725A/B/C, 10726A, E1833C/E/G/J/M, E1834E/G/J/M/Z, N1209A	Number and placement of axes, power balance between axes, ease of system alignment	5964-6190E: Laser and optics - Data Sheet 5989-4740EN: Beam splitters - Data Sheet 5990-5055EN: E1834x - Product Fact Sheet 5990-6651EN: E1834x - Data Sheet 5990-8267EN: beam directing optics - Product Fact Sheet
Measurement optics and mounts	10702A, 10702A-001, 10702A-080, 10702AV, 10703A, 10703AV, 10704A, 10705A, 10705A-080, 10706A, 10706A-080, 10706B, 10706B-C02, 10706B-080, 10706BV, 10710A/B, 10711A, 10713B/C/D, 10715A/C, 10716A, 10719A, 10719A-C02, 10721A, 10721A-C01, 10722A, 10723A, 10724A, 10724A-V02, 10728A, 10735A, 10736A, 10736A-001, 10737L/R, 10770A, 10774A, 10775A, E1826E/F/G, E1827A, Z4399A/C, Z4420B, Z4421B, Z4422B	Maximum stage velocity, measurement resolution, type of stage reflector	5964-6190E: Laser and optics - Data Sheet 5990-5143EN: E1826E/F/G - Product Fact Sheet 5990-5272EN: Z4399A - Product Fact Sheet 5990-5273EN: Z4420B - Product Fact Sheet 5990-5274EN: Z4421B - Product Fact Sheet 5990-5275EN: Z4422B - Product Fact Sheet 5990-9943EN: Measurement optics - Product Fact Sheet 5991-0461EN: E1827A - Product Fact Sheet
Receivers and electronics	10780C/F, E1706A, E1708A, E1709A, E1735A, N1231A/B, 10897D, 10898D, N1225A, N1226A, N1227A, N1228A/B	Measurement resolution, hardware interface, data rate	5989-8714EN: N1225A - Data Sheet 5990-5142EN: N1225A - Product Fact Sheet 5989-1787EN: N1231A - Data Sheet 5989-1788EN: N1231B - Data Sheet 5989-3959EN: N1231B - Application Note 5990-5144EN: N1231A/B - Product Fact Sheet 5990-3345EN: N1226A/7A/8A/8B - Data Sheet 5990-7620EN: N1226A/7A/8A/8B - Product Fact Sheet 5990-8206EN: Electronics - Product Fact Sheet
Laser, receiver, sensor and fiber optic cables	10881A/B/C/D/E/F, N1251B, E1847A, E1848A/B, 10882A/B/C, 10880A/B/C, N1250A/B/E/F, E1739A/B/C/D, E1705A/B/C/E/F, N1211A-001	Distance between components	5990-8133EN: Cables - Product Fact Sheet
Compensation	10717A/C, E1736A, E1737A, E1738A	Measurement accuracy	5989-8455EN: E1737A - Data Sheet 5989-8456EN: E1738A - Data Sheet 5989-9709EN: E1736A - Data Sheet 5964-6190E: Laser and optics - Data Sheet



### Three-Year Warranty

[www.keysight.com/find/ThreeYearWarranty](http://www.keysight.com/find/ThreeYearWarranty)

Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

### Keysight Assurance Plans

[www.keysight.com/find/AssurancePlans](http://www.keysight.com/find/AssurancePlans)

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.



### System programming design references:

- 5991-0329EN: System position calculations - Product Fact Sheet
- 5991-0334EN: System compensation numbers calculations - Product Fact Sheet

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