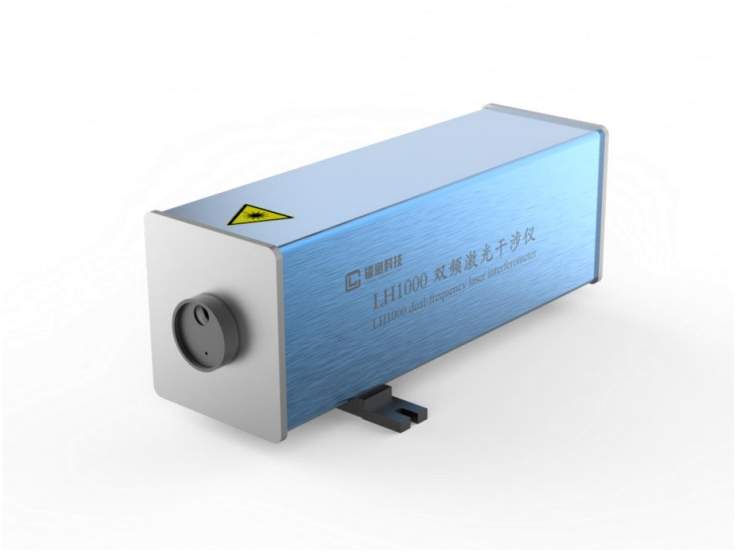
Company introduction

Beijing Leice Technology Co. Ltd., originated from Sate Key Laboratory of Precision Measurement Technology Instruments, Tsinghua University, is a high-tech company that offers measurement solutions as well as precision laser measurement instruments with independent intellectual property rights.

Leice offers dual-frequency laser interferometer, laser feedback interferometer, phase retardation measurement instrument, laser teaching instrument, and laser nanometer ruler, etc. It can meet the demand for precision measurement of mechanical manufacturing, microelectronics, optical manufacturing, scientific research and education industries, etc.

LH1000 Dual-frequency Interferometer



Description

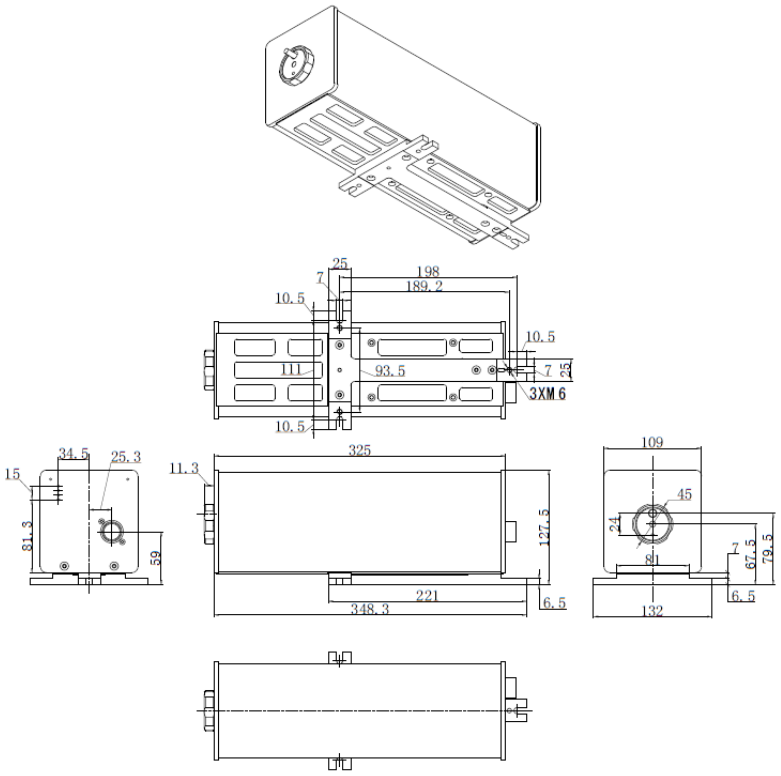
The laser interferometry is of the extremely high precision, and is one of the most important means in the measurement science. It has been widely used in machine tool detection and scientific research. It is also a preferred measurement means in the measurement industry of the high precision. The LH1000 dual-frequency laser interferometer is based on the core skills of Department of Precision Instrument of Tsinghua University. It uses the birefringence-Zeeman laser with independent intellectual property rights, which ensure LH1000 surpasses the ordinary interferometer with Zeeman dual-frequency laser in the long distance measurement. It is a reliable choice to the user in the measurement industry.

With extremely high precision performance, the laser interferometry is one of the most important techniques in the measurement science. It has been widely used in machine tool detection and scientific research. It is also a preferred method in the high-precision measurement industry. LH1000 dual-frequency laser interferometer, adopting the skills of the Department of Precision Instrument of Tsinghua University, uses the birefringence-Zeeman laser with independent intellectual property rights. It outperforms ordinary interferometers with Zeeman dual-frequency laser in long-distance measurements. LH1000 proves to be a wise choice in the measurement industry.

Parameter

Model number	Reference frequency (MHz)	Min output power (μW)	Wavelength stability (lifetime,ppm)
LH1000A	1.5±0.5	>500	±0.02
LH1000B	2.5±0.5	> 500	±0.02
LH1000C	3.5±0.5	>500	±0.02
LH1000D	4.5±0.5	>500	±0.02
LH1000DL	5.5±0.5	>500	±0.02
LH1000EL	6.5±0.5	>500	±0.02
LH1000FL	7.5±0.5	>500	±0.02
LH1000GL	8.5±0.5	>500	±0.02
LH1000H	9.5±0.5	>500	±0.02
LH1000I	10.0-20.0(customization)	>500	±0.02

Dimensions	330mm×110mm×130mm
Height of light output	79.5±1.0mm
output power (μW)	500~1000
Available laser beam diameter (mm)	3,6,9
Linear measurement accuracy	±0.4ppm
Nonlinear error	<0.3nm
Warm-Up Time	<20min
Power Requirements	±15V



Advantage

- Adopting He-Ne dual-frequency laser independently developed and produced, LH1000 has no nolinear error.
- Large frequency difference, 1~20MHz; Highe travel velocity, >2m/s
- Power>0.5mW, linear measurement range>40m, and can achieve multiaxis measurement.
- Independent intellectual property rights.
- High quality service.

Product application

The accuracy of the stage was increased from 23nm to 6nm with the LH1000 dual-frequency laser interferometer been used in Nikon lithography machine!