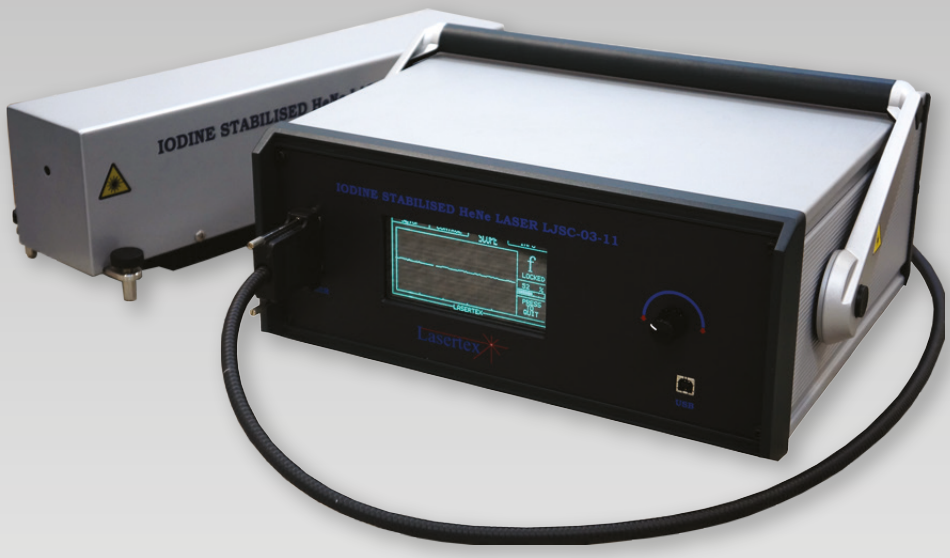
Lasertex
LASER METROLOGY

Frequency Laser Standard LJCS-03-11



Frequency Laser Standard is automatic laboratory device designed to compare and calibrate He-Ne (632,8nm wavelenght) lasers. Absolute laser frequency is defined by iodine vapour cell. This is unique laboratory device with automatic absorption peaks detection and results presentation on graphic display.

Main features:

International standards

Fully compliance with the International Committee of Weights and Measures CIPM 97 “Mise en pratique” recommendations for the realization of the meter

High resolution and accuracy

Frequency repeatability: 2.5 x 10-11 and stability: 2.5 x 10-12

Full automation

Automatic tune/ lock-in at 12 different iodine hyperfine components

Reference unit

Primary laser reference standards for realization of the meter, calibration reference for all stabilized lasers

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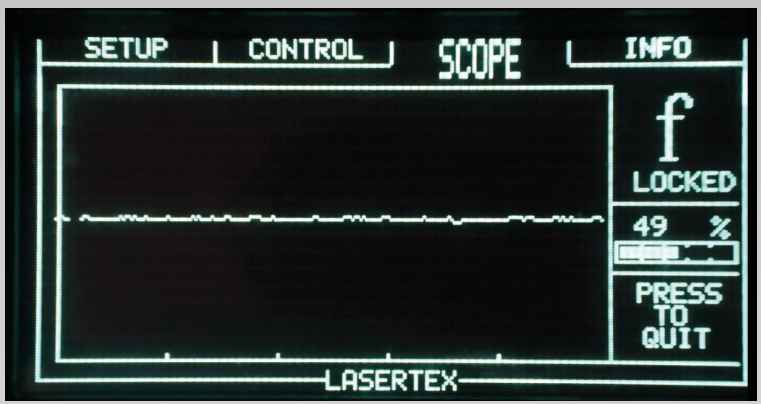

Main parameters

Parameters	Range
Wavelength	633 nm
Frequency stability (10s averaging time)	<2.5 x 10-12
Repeatability	2.5 x 10-11
Method of stabilization	Third harmonic method
Accessible 127I2 hyperfine components	d,e,f,g,h,i,j,k,l,m,n of the 11-5 R(127) absorption
Iodine cell sidearm temperature	15.0 ± 0.2 °C (temperature in range 11.0 – 19.0 °C)
Output power	70 - 110 µW
Polarization	Linear, vertical
Plasma tube	Double Brewster window
Continuous frequency lock over 24 hours for ambient temperature 20 °C µ1°C	V
Automatic tune	V
Manual tune	V
Dimension of controller	350 x 250 x 110 mm
Dimension of laser head	460 x 180 x 155 mm
AC line voltage	220-240 V / 50 Hz

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