LHJ-1F

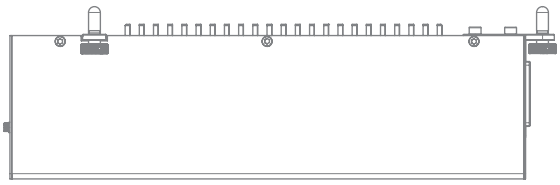
Lasertex

Commercial offer

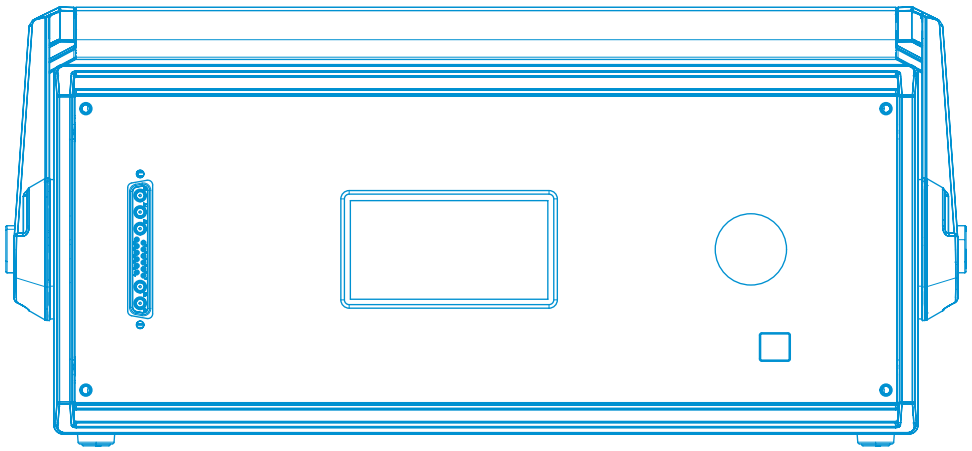
633nm OFFSET LASER FREQUENCY STANDARD

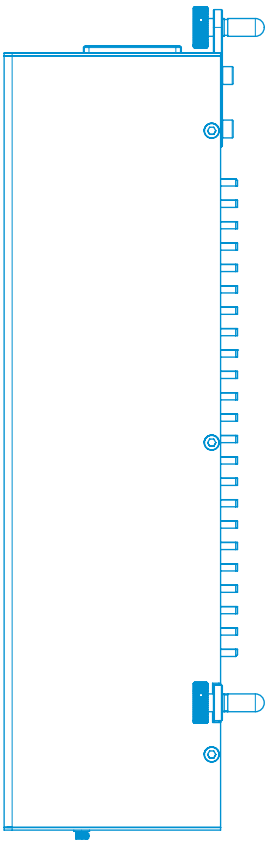
December 2021

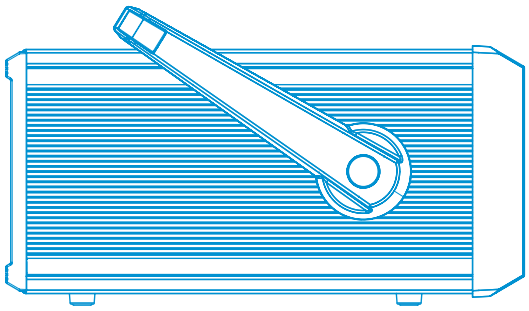
LHJ-1F

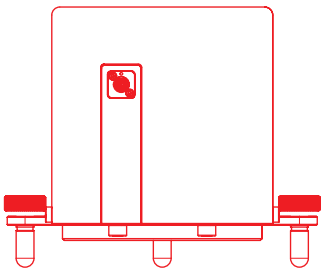


Offset laser standard









1 mW output power

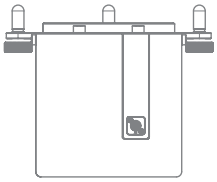
High Stability

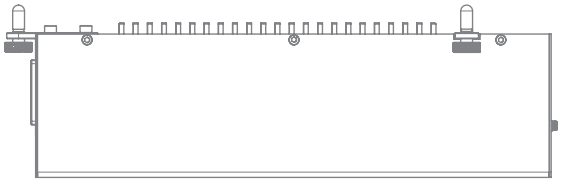
VFD Display

Fibre output

Offset Laser Frequency Standard LHJ-1F is a wavelength reference device designed to be used for calibration and comparison of He-Ne lasers (632,8 nm wavelength). The model is based on LJSC-03-11 Laser. The absolute laser frequency is defined by the iodine vapour cell and serves as feedback to stabilise more powerful laser. The device provides the same frequency accuracy and stability as the LJSC-03-11 laser with the output power of a 1mW HeNe tube. The stronger tube is locked at a user chosen offset to the cavity stabilised HeNe tube. The offset value can be regulated in a wide range without degradation of laser frequency accuracy.

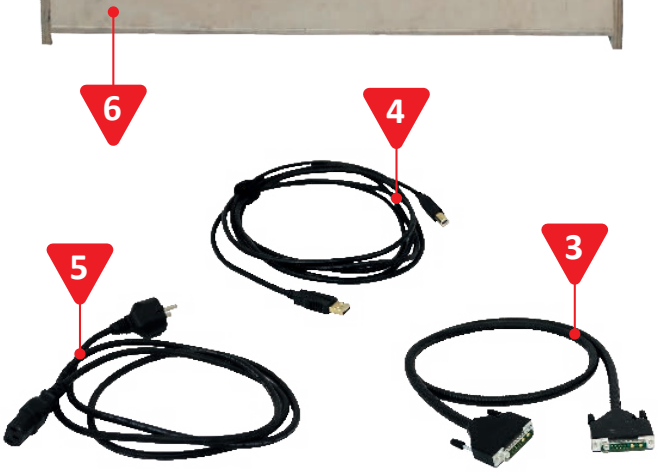
Offset Laser Frequency Standard LHJ-1F is a unique laboratory device with automatic absorption peaks detection and presentation of results on the graphic display and with remote control from a PC computer. It differs from other commercially available lasers in that it requires no calibration in order to realise its full accuracy. Its rugged and compact design makes it suitable for laboratory and field applications like precision measurement, laser spectroscopy and other high accuracy applications.





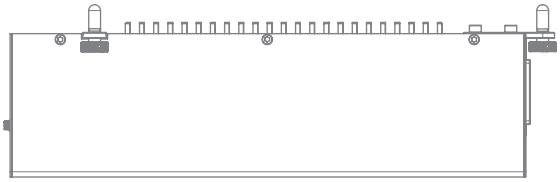
LHJ-1F

Set includes



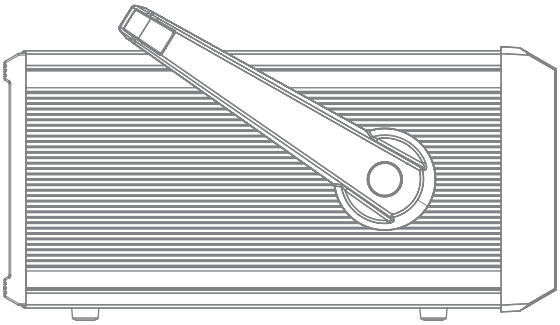
1. Laser controller
2. Laser head
3. Connection cable
4. USB cable
5. Power supply cable
6. Wooden box

LHJ-1F



Highlights

- 633 nm wavelength; 0.7 - 1.0 mW typical output power
- Exceptional long-term accuracy – 2.5 parts in 10^{-11} absolute frequency accuracy (12 kHz)
- Modulation free output
- Iodine cells manufactured and calibrated according to requirements of the Bureau International des Poids et Mesures (BIPM)
- Fully automatic operation
- Compact all-in-one design
- SMF or PMF optic output (FC/APC)
- VFD Display
- Turn and click control



Specification

Parameter	Range
Wavelength	632,8 nm
Frequency repeatability	2.5 x 10^{-11}
Frequency stability (10s averaging time)	< 2.5 x 10^{-12}
Method of stabilisation	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 side-arm temperature	15.0 ± 0.2 °C (temperature in range 11.0 – 19.0 °C)
Output power	700 - 1000 µW unmodulated
Offset value vs reference laser	50 - 400 MHz, 1kHz step
Polarization	Linear, vertical
Laser tube (reference)	Double Brewster window
Laser tube (offset locked)	1mW HeNe tube
Continuous frequency lock over 24 hours for ambient temperature 20 °C µ1°C	Yes
Automatic tune	Yes
Manual tune	Yes
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

Dimensions

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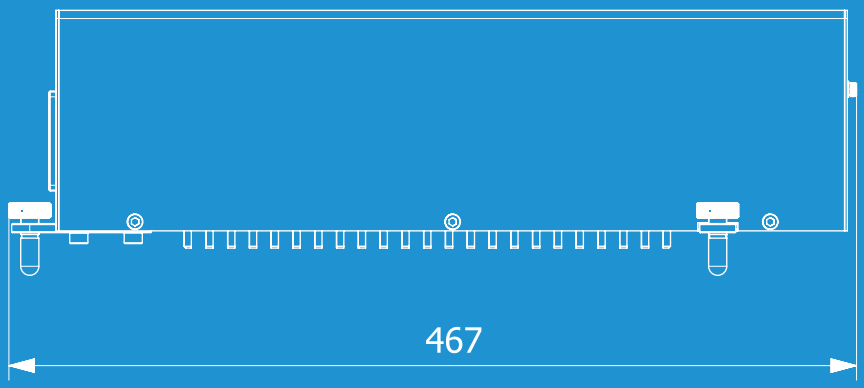
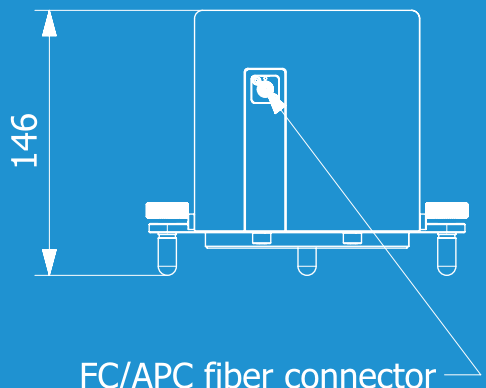
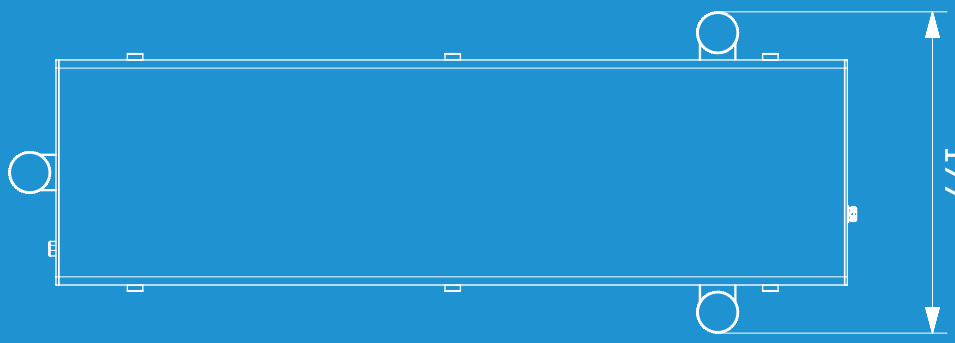
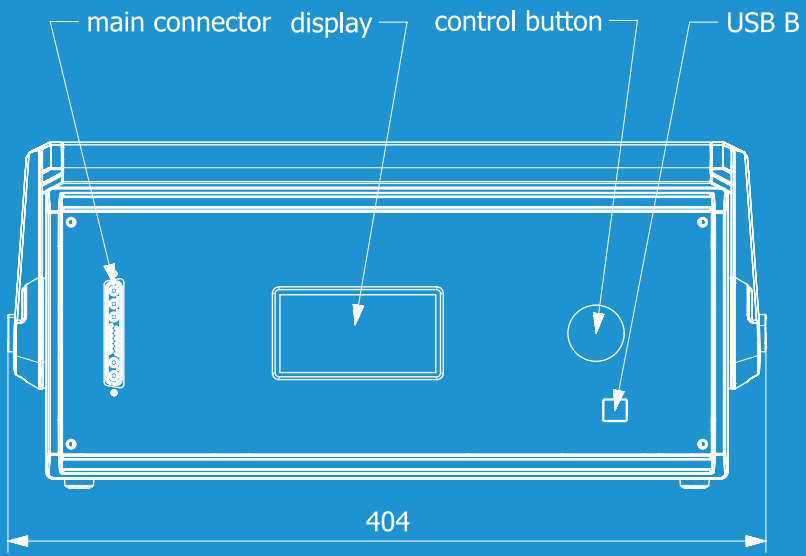
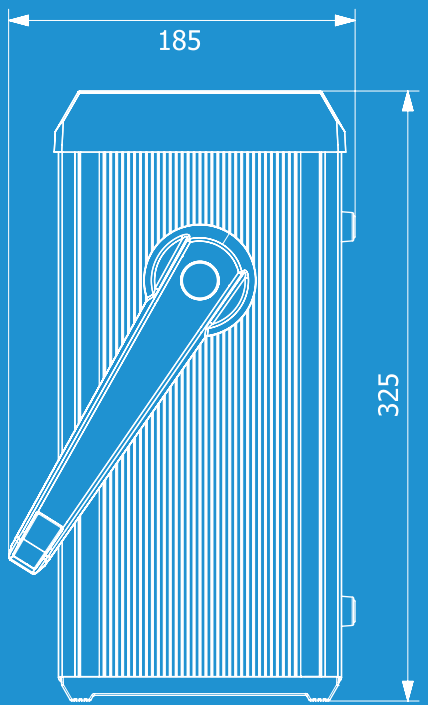






** The scale is consistent within one part. The dimensions are metrical and presented in millimetres.*





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Lasertex

For price contact

sales@lasertex.eu

Includes	Part #	Includes	Part #
Laser controller	20IL04.02	USB cable	CAB-USBAB/3-BK
Laser head	20IL06.02	Power supply cable	AK-PC-01A
Connection cable	LHJ-CAB-01	Ultra-durable wooden box	20IL03.03

Terms and conditions

Order and Delivery Terms

- 100% prepayment in advance befor shipment.
- Delivery terms - CPT.
- Delivery within 4-6 weeks.*

The Total price includes:

- The certificate of the laser frequency calibration made by Lasertex
- Instruction
- **Free license and lifetime soft-ware updates**
- Warranty - 12 month
- Warranty service by Lasertex in Poland
- Lifetime technical support
- One day online training
- Additional 2 year warranty - 2,000.00 EUR

Calibration

- On request

Trainning

- Two-day training at Lasertex head-quarters - 1,000.00 EUR

Offer is valid 3 month

**The order processing time may be extended to 6-8 weeks for reasons beyond our control. Shipping not incuded.*

Contacts

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