

# LBX-450-HPE Laser Diode

## Optical characteristics \*

**Emission wavelength** 450 nm Wavelength range ± 10 nm

≤ 5 nm; 2 nm Linewidth typical

Output power Fiber coupled Free space

650 mW 520 mW 1200 mW 960 mW

Control mode(s) Automatic Power Control (APC)

Automatic Current control (ACC)

Power stability ± 1% over 8 hours and within ±3k

### Transverse multimode free-space beam

Beam dimensions (typ) 2.6 X 0.7 mm at 1/e2, at laser aperture

Beam divergence 0.2 X 4.0 mrad at 1/e2, full angle, in far field

#### - Modulation functions

#### **Analog Modulation**

0-5V input voltage

Bandwidth DC-1 MHz

3dB cut-off frequency, ACC mode

Rise/fall time, 10%-90% ≤ 200 ns

# Fiber coupling option

MM Fiber

AR-coated SMA FC-APC

(50 µm, 0.22 NA)

Coupling Efficiency ≥ 80%

connector

Available optical

±2%

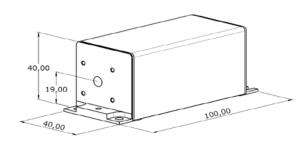
Power stability over 8 hours and within ±3k

Fiber length 2.0 m

Warranty: 12 months from shipment date \*specification at nominal power



# System specifications



# Plug and Play version provided with:

ControlBoxx

# Other options

- Heatsink. Including Power Supply
- L6Cc-HPE wavelength combiner compatibility
- Electro-mechanical shutter
- External modulator
- Specific beam shaping

## General specifications

	Plug and Play version	OEM version
Compliance	CE FDA 21 CFR 1040.10/1040.1	FDA 21 CFR 1040.10 / 1040.11
Operating temperature	10 - 38°C ambiant air with optional heat sink	10 - 50°C baseplate
Power consumption	≤ 25 W	≤ 10 W
Storage temperature	0 to 60°C	
Supply voltage	100 to 240 VAC external power supply	5 to 12 VDC
Warm-up time	≤ 2 minutes	
Interfaces	USB, RS-232, dedicated electronic interface	