

LBX-633S

Laser Diode

Optical characteristics *

632.5 nm (± 0.5 nm) **Emission wavelength**

Wavelength stability ≤ 10 pm

Linewidth ≤100 MHz

Coherence Length \geq 1 m typ.

Output power Free space Fiber coupled

> 40 mW 20 mW

Automatic Current Control (ACC) Control mode(s)

Power stability over 8 hours and within ±3k

optional with Power adjustment

L1C-MPA

Optical noise ≤ 0.2% %RMS, 10Hz - 20MHz bandwidth

Transverse singlemode free-space beam

Beam waist diameter (typ) at 1/e², 50mm from output aperture $0.4 \pm 0.2 \text{ mm}$

Beam divergence $3 \pm 1 \text{ mrad}$ at 1/e2, full angle, in far field

Beam quality factor (M2) ≤ 1.9

Beam circularity, ≥ 65%

Polarization

50:1 extinction ratio (typ)

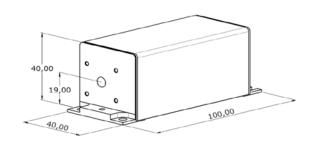
Polarization state linear, vertical at +/-5°

Fiber coupling option

Specifications	SM and PM Fiber	MM Fiber (50 µm, 0.22 NA)
Coupling Efficiency	≥ 50%	≥ 80%
Polarization Ratio (PMF only)	100 : 1	n/a
Available optical connector	FC-APC FC/PC, FCP8 on demand	AR-coated SMA FC-APC
Power stability over 8 hours and within ±3k	±2%	±2%
Fiber length	2.0 m	2.0 m



System specifications



Plug and Play version provided with:

- ControlBoxx
- Power supply

Other options

- L1C-MPA and L1C-AOM
- Electro-mechanical shutter
- Heat sink

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	

*specification at nominal power

Warranty: 12 months from shipment date

