

LBX-633S

Laser Diode

Optical characteristics *

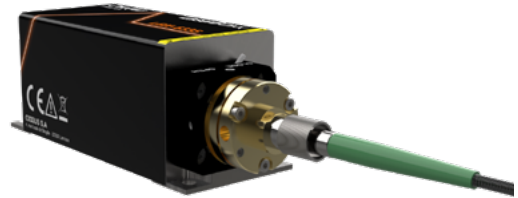
Emission wavelength	632.5 nm (± 0.5 nm)	
Wavelength stability over 8 hours and ±3°K	≤ 10 pm	
Linewidth	≤100 MHz	
Coherence Length	≥ 1 m typ.	
Output power	Free space	Fiber coupled
	40 mW	20 mW
Control mode(s)	Automatic Current Control (ACC)	
Power stability over 8 hours and within ±3k	± 1%	
Power adjustment	optional with L1C-MPA	
Optical noise %RMS, 10Hz - 20MHz bandwidth	≤ 0.2%	

— Transverse singlemode free-space beam

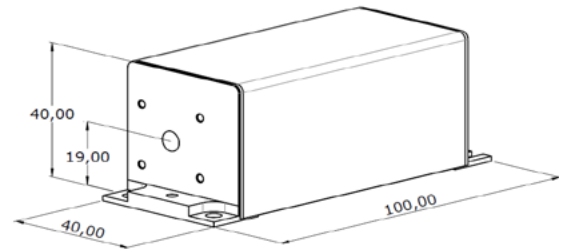
Beam waist diameter (typ) at 1/e ² , 50mm from output aperture	0.4 ± 0.2 mm
Beam divergence at 1/e ² , full angle, in far field	3 ± 1 mrad
Beam quality factor (M²)	≤ 1.9
Beam circularity, in far field	≥ 65%
Polarization extinction ratio (typ)	50:1
Polarization state	linear, vertical at +/-5°

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 :

- ControlBox
- 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 ambient 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



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