

# LBX-633S

**Laser Diode**

## Optical characteristics \*

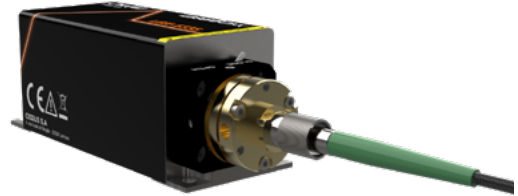
<b>Emission wavelength</b>	632.5 nm (± 0.5 nm)	
<b>Wavelength stability</b> over 8 hours and ±3°K	≤ 10 pm	
<b>Linewidth</b>	≤100 MHz	
<b>Coherence Length</b>	≥ 1 m typ.	
<b>Output power</b>	<b>Free space</b>	<b>Fiber coupled</b>
	40 mW	20 mW
<b>Control mode(s)</b>	Automatic Current Control (ACC)	
<b>Power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

## — Transverse singlemode free-space beam

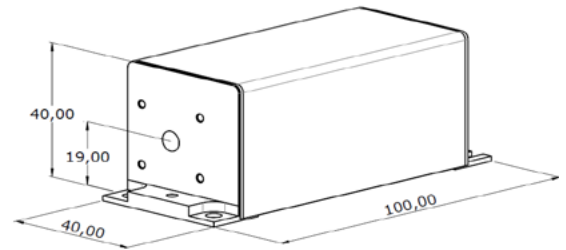
<b>Beam waist diameter (typ)</b> at 1/e <sup>2</sup> , 50mm from output aperture	0.4 ± 0.2 mm
<b>Beam divergence</b> at 1/e <sup>2</sup> , full angle, in far field	3 ± 1 mrad
<b>Beam quality factor (M<sup>2</sup>)</b>	≤ 1.9
<b>Beam circularity,</b> in far field	≥ 65%
<b>Polarization extinction ratio (typ)</b>	50:1
<b>Polarization state</b>	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
<b>Compliance</b>	CE FDA 21 CFR 1040.10/1040.1	FDA 21 CFR 1040.10 / 1040.11
<b>Operating temperature</b>	10 - 38°C ambient air with optional heat sink	10 - 50°C baseplate
<b>Power consumption</b>	≤ 25 W	≤ 10 W
<b>Storage temperature</b>	0 to 60°C	
<b>Supply voltage</b>	100 to 240 VAC external power supply	5 to 12 VDC
<b>Warm-up time</b>	≤ 2 minutes	
<b>Interfaces</b>	USB, RS-232, dedicated electronic interface	

\*specification at nominal power

Warranty : 12 months from shipment date



## CONTACT US

Oxxius S.A  
4 rue Louis de Broglie  
F-22300 Lannion, France