

# LBX-830S

**Laser Diode**

## Optical characteristics \*

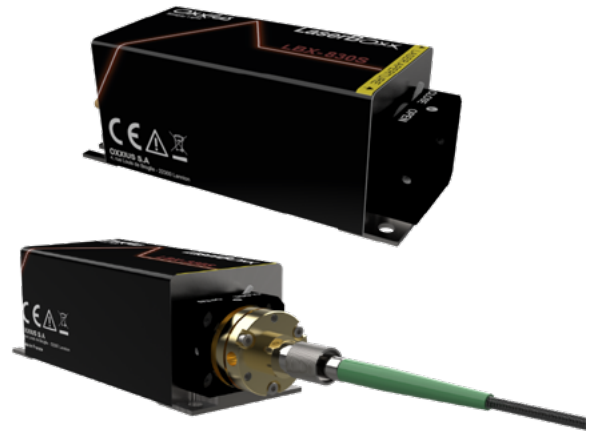
<b>Emission wavelength</b>	830 nm ( $\pm 0.5$ nm)	
<b>Wavelength stability</b> <small>over 8 hours and <math>\pm 3^\circ\text{K}</math></small>	$\leq 10$ pm	
<b>Linewidth</b>	$\leq 100$ MHz	
<b>Coherence Length</b>	$\geq 1$ m typ.	
<b>Output power</b>	<b>Free space</b>	<b>Fiber coupled</b>
	100 mW	50 mW
<b>Control mode(s)</b>	Automatic Current Control (ACC)	
<b>Power stability</b> <small>over 8 hours and within <math>\pm 3\text{k}</math></small>	$\pm 1\%$	
<b>Power adjustment</b>	optional with L1C-MPA	
<b>Optical noise</b> <small>%RMS, 10Hz - 20MHz bandwidth</small>	$\leq 0.2\%$	

## — Transverse singlemode free-space beam

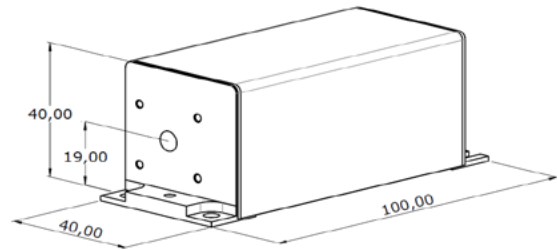
<b>Beam waist diameter (typ)</b> <small>at <math>1/e^2</math>, 50mm from output aperture</small>	$0.4 \pm 0.2$ mm
<b>Beam divergence</b> <small>at <math>1/e^2</math>, full angle, in far field</small>	$4 \pm 1$ mrad
<b>Beam quality factor (<math>M^2</math>)</b>	$\leq 1.9$
<b>Beam circularity,</b> <small>in far field</small>	$\geq 65\%$
<b>Polarization extinction ratio (typ)</b>	50:1
<b>Polarization state</b>	linear, vertical at $\pm 5^\circ$

## Fiber coupling option

Specifications	SM and PM Fiber	MM Fiber <small>(50 <math>\mu\text{m}</math>, 0.22 NA)</small>
Coupling Efficiency	$\geq 50\%$	$\geq 80\%$
Polarization Ratio <small>(PMF only)</small>	100 : 1	n/a
Available optical connector	FC-APC FC/PC, FCP8 on demand	AR-coated SMA FC-APC
Power stability <small>over 8 hours and within <math>\pm 3\text{k}</math></small>	$\pm 2\%$	$\pm 2\%$
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
<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>	$\leq 25$ W	$\leq 10$ 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>	$\leq 2$ minutes	
<b>Interfaces</b>	USB, RS-232, dedicated electronic interface	

\*specification at nominal power

Warranty : 12 months from shipment date



## CONTACT US

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