

# LBX-915

## Laser Diode

### Optical characteristics \*

**Emission wavelength** 915 nm ( $\pm 5$  nm tolerance)  
**Linewidth, FWHM**  $\leq 1.5$  nm

Part number	Free space output	Fiber-coupled output	
		Single mode	Multi mode fiber
LBX-915-200-CSB-(OE/PPA)	200 mW	140 mW	160 mW

**Power stability**  $\pm 2\%$   
over 8 hour, temperature within  $\pm 3^\circ\text{C}$   
**Power adjustment range** 0 to 100%  
**Control modes** Automatic Current Control (ACC)  
**Optical noise**  $\leq 0.2\%$  rms  
10 Hz-20 MHz bandwidth

### External modulations Analog Modulation

**Rise / fall time**  $\leq 200$  ns  
**-3dB modulation bandwidth**  $\geq 2$  MHz

### Digital Modulation

**Rise / fall time**  $\leq 5$  ns  
**-3dB modulation bandwidth**  $\geq 150$  MHz

### Transverse singlemode free-space beam

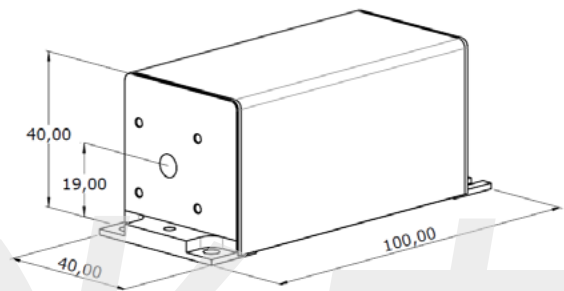
**Beam diameter (typ)** at  $1/e^2$ ,  
5 cm from the beam aperture 0.8 mm  
**Beam divergence** at  $1/e^2$   
full beam, in far field 2 mrad  
**Beam quality factor**  $M^2 \leq 1.25$   
**Beam circularity**, in far field  $\geq 90\%$   
**Polarization state** Linear, vertical at  $\pm 5^\circ$   
**Polarization**  $\geq 50:1$

### 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 to 38°C ambient air with optional heat sink	10 to 50°C baseplate
<b>Power consumption</b>	10 W max.	
<b>Storage temperature</b>	0 to 60°C	
<b>Humidity</b>	Up to 90%RH, non-condensing	
<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 ControlBoxx controller	USB, RS-232, electronic interface



### Mechanical drawings



### Plug and Play version provide with:

- ControlBoxx controller
- Manual shutter
- DC power supply

### Available options

- OPT-SHTE-LCX Electro-mechanical shutter
- ACX-HTSK-1 Heat sink for operation in ambient air up to 38°C
- ACX-EXK Flange for improved stability
- OPT-CLUP-980 Clean-up filter

### Fiber coupling options \*\*

	ACX-FCSMUV or ACX-FCPMUV	ACX-FCMM-R50
<b>Power stability</b> <small>over 8 hours and within <math>\pm 3\text{k}</math></small>	$\pm 2.0\%$	$\pm 2.0\%$
<b>Fiber optical characteristics</b>	3.5 $\mu\text{m}$ core diameter 0.11 N.A	50 $\mu\text{m}$ core diameter 0.22 N.A
<b>Polarization extinction ratio</b> <small>(ACX-FCPM only)</small>	$\geq 50:1$	n/a
<b>Fiber output connector</b>	FC/APC	FC/APC
<b>Fiber length</b>	2 m	2 m

Warranty : 12 months from shipment date

\*Specifications at nominal power

\*\* Variant are available on demand



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