

## LBX-808

### Diode-base laser source

#### Optical characteristics (\*)

Emission wavelength (and tolerance)       $808 \text{ nm} \pm 10 \text{ nm}$   
 Linewidth, FWHM                                   $\leq 1.5 \text{ nm}$

Optical output power →  
 Part number ↓  
 LBX-808-200-CSB

Free space	Fiber-coupled output	
	Single mode fiber	Multi mode fiber
200 mW	140 mW	160 mW

Power stability over 8 hours, temperature within  $+/-3^\circ\text{C}$   
 Power adjustment range  
 Control modes  
 Optical noise, %RMS, over a 20Hz-20MHz bandwidth

$\pm 1.0\%$   
 0 to 100%  
 Automated power control (APC)  
 Automated current control (ACC)  
 $\leq 0.2\%$

#### Modulation functions

##### Analog modulation

Rise / fall time       $\leq 200 \text{ ns}$   
 -3dB modulation bandwidth       $\geq 2.5 \text{ MHz}$

##### Digital modulation

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

#### Transverse singlemode free-space beam

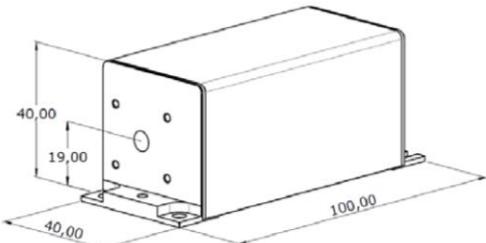
Beam waist diameter at  $1/e^2$ , 50mm from output aperture      0.7 mm  
 Beam divergence at  $1/e^2$ , far field      1.5 mrad  
 Beam quality factor       $M^2 \leq 1.25$   
 Beam circularity, in far field       $\geq 90\%$   
 Polarization state      Linear, vertical at  $\pm 5^\circ$   
 Polarization extinction ratio       $\geq 50:1$

#### Fiber coupling options

Part number	ACX-FCPM	ACX-FCMM-R50 50µm core, 0.22 N.A.
Output power	140 mW	160 mW
Power stability over 8 hours, temperature within $+/-3^\circ\text{C}$	$\pm 2.0\%$	$\pm 2.0\%$
Polarization extinction ratio (ACX-FCPM only)	$\geq 50:1$	n/a
Fiber output connector	FC/APC	FC/APC
Fiber length	2 m	2 m



#### Mechanical drawings



#### Plug and Play version provided with:

- "ControlBoxx" controller
- Manual shutter
- Power supply

#### Options

- Electro-mechanical shutter
- Heat sink
- Clean-up filter

#### General specifications

	Plug&Play version	OEM version
Compliance	CE FDA 21 CFR 1040.10/11	FDA 21 CFR 1040.10/11
Operating temperature	10 - 38°C, ambient air with optional heat sink	10 - 50°C, baseplate
Power consumption	$\leq 10 \text{ W}$	
Storage temperature	$0^\circ\text{C}$ to $60^\circ\text{C}$	
Supply voltage	100 to 240 VAC power supply provided	5V-12V DC
Warm-up time	$\leq 2 \text{ minutes}$	
Interfaces	USB, RS-232, dedicated electronic interface	
Warranty	12 month from shipment date	

(\*) Specifications at nominal power



Oxxius operates a continuous improvement programme which can result in specifications being modified without notice.

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