

LaserBoxx

One platform for all colors

LCX series

Integrated controller
Low profile laser head (32mm)
532, 553, 561 nm
Up to 500 mW

Flow Cytometry
Confocal Microscopy
Super Resolution Imaging
Fluorescence Excitation

Raman Spectroscopy
Holography
Laser Doppler Velocimetry
Dynamic Light Scattering
Interferometry

- * SLM and Low Noise versions
- * Lowest power consumption
 - * < 12 W for < 200 mW lasers
 - * < 15 W for 500 mW, 532 nm lasers
 - * < 20 W for 500 mW, 561 nm lasers
- * TEM₀₀ beam quality
- * Low noise: 0.2 % rms
- * Tailored beam diameters (0.6 to 1.4mm)
- * Industry standard footprint (40x100mm)
- * SM/PM/MM fiber coupling options

532 nm

553 nm

561 nm

Specifications

Your application:	Measurement & Spectroscopy			Biophotonics & Industrial		
	Single Frequency Emission			Low Noise Emission		
MODEL	LCX-532S	LCX-553S	LCX-561S	LCX-532L	LCX-553L	LCX-561L
Central emission wavelength	532 nm	553 nm	561 nm	532 nm	553 nm	561 nm
Spectral linewidth	≤ 1 MHz			≤ 1 nm		
Wavelength Stability	≤ 1 pm					
Polarization ratio	1000:1 , vertical					
Continuous wave output power	50mW to 500mW	50mW to 300mW	50mW to 500mW	50mW to 500mW	50mW to 300mW	50mW to 500mW
Power stability over 8 hours, temperature variation of ± 3°K	± 2 % p-to-p					
Optical Noise, %RMS, 10Hz-20MHz bandwidth	< 0.2 %					
Beam circularity	>90%					
Beam waist diameter (1/e ²), at 50mm from output aperture	0.7 mm typ.					
Beam divergence at 1/e ² , full angle, in far field	< 1.3 mrad					
Beam quality, TEM ₀₀ (M ²)	≤ 1.1					
OPTION						
Coupling on optical fiber (SM, PM or MM)	35mW to 350mW	35mW to 210mW	35mW to 350mW	35mW to 350mW	35mW to 210mW	35mW to 350mW

DPSS Monolithic Resonator

The unique feature of the LaserBoxx DPSS is a proprietary, Alignment-free Monolithic Resonator (AMR). The elements in the cavity are assembled into a single ultra-low-loss optical subsystem, using a proprietary crystal bonding technique.

A highly transparent compound, deposited on chemically activated end-faces of two crystals, creates a bond that is extremely robust over time, temperature variations, and



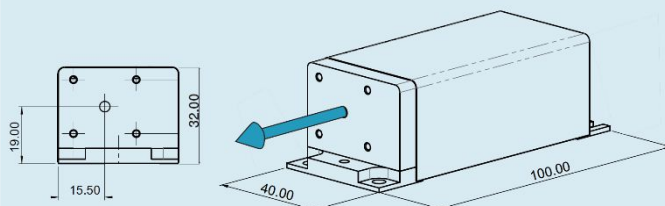
insensitive to mechanical vibrations. Dielectric mirrors coated at the end-faces of the crystals complete the monolithic assembly with no moving parts.

General specifications

Technology	Monolithic resonator
Communication interface	USB / RS232 / Analog
Start-up time	2 minutes typ., 10 minutes max.
Supply voltage	5V to 12V DC
Heat dissipation	12 W typ., 20 W max. conduction through base plate
Operating temperature, base plate	10 °C to 45°C
Dimensions (l x w x h)	100 x 40 x 32 mm

Mechanical drawings

Laser head, integrated controller



Contact us:

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

Phone: +33 296 48 70 28
Fax: +33 296 48 21 90

sales@oxxius.com
www.oxxius.com

