

LCX-553L

DPSS laser

Optical characteristics *

Emission wavelength 532.3 nm (± 10 nm tolerance)
Linewidth, FWHM ≤ 1 nm

Part number	Free space output	Fiber-coupled output	
		Single mode	Multi mode fiber
LCX-553L-50-CSB 5OE/PPA)	50 mW	35 mW	40 mW
LCX-553L-100-CSB 5OE/PPA)	100 mW	70 mW	80 mW

Power stability $\pm 1\%$
over 8 hour, temperature within $\pm 3^\circ\text{C}$
Power adjustment range 0 to 100%
Control modes Automatic Power Control (APC)
Optical noise $\leq 0.5\%$ rms
10 Hz-20 MHz bandwidth

External modulations

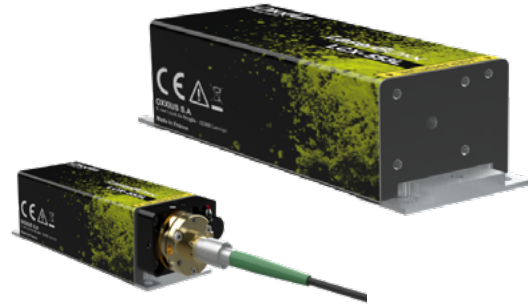
Analog Modulation	L1C-MPA option	L1C-AOM option
Rise / fall time	≤ 1 s	≤ 300 ns
-3dB modulation bandwidth	-	≥ 3 MHz
Digital Modulation		
Rise / fall time	≤ 30 ms	≤ 300 ns
-3dB modulation bandwidth	-	≥ 3 MHz

Transverse singlemode free-space beam

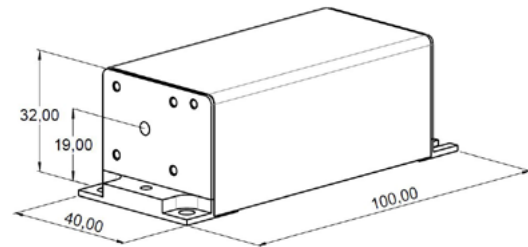
Beam diameter (typ) at $1/e^2$, 5 cm from the beam aperture 0.7 mm
Beam divergence at $1/e^2$ full beam, in far field 1 mrad
Beam quality factor $M^2 \leq 1.1$
Beam circularity, in far field $\geq 90\%$
Polarization state Linear, vertical at $\pm 5^\circ$
Polarization $> 100 : 1$

General specifications

	Plug and Play version	OEM version
Compliance	CE FDA 21 CFR 1040.10/1040.1	FDA 21 CFR 1040.10 / 1040.11
Operating temperature	10 to 38°C ambient air with optional heat sink	10 to 50°C baseplate
Power consumption	20 W max.	
Storage temperature	0 to 60°C	
Humidity	Up to 90%RH, non-condensing	
Supply voltage	100 to 240 VAC external power supply	5 to 12 VDC
Warm-up time	≤ 10 minutes	
Interfaces	USB ControlBoxx controller	USB, RS-232, electronic interface



System specifications



Plug and Play version provide with:

- ControlBoxx controller
- Manual shutter
- DC power supply

Available options

- ACX-HTSK-1 Heat sink for operation in ambient air up to 38°C
- ACX-HTSK-7 for operation in ambient air up to 46°C
- OPT-SHTE-LCX Electro-mechanical shutter
- L1C-MPA for power adjustment
- L1C-AOM for high speed modulation

Fiber coupling options **

	ACX-FCSMUV or ACX-FCPM	ACX-FCMM-R50
Power stability over 8 hours and within $\pm 3k$	$\pm 2.0\%$	$\pm 2.0\%$
Fiber optical characteristics	3.5 μm core diameter 0.11 N.A	50 μm core diameter 0.22 N.A
Polarization extinction ratio (ACX-FCPM only)	$> 100 : 1$	n/a
Fiber output connector	FC/APC	FC/APC
Fiber length	2 m	2 m

Warranty : 18 months from shipment date

*Specifications at nominal power

** Variant are available on demand

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AVOID EXPOSURE TO BEAM