

# LCX-553L

DPSS laser

## Optical characteristics \*

**Emission wavelength** 532.3 nm ( $\pm 10$  nm tolerance)  
**Linewidth, FWHM**  $\leq 1$  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

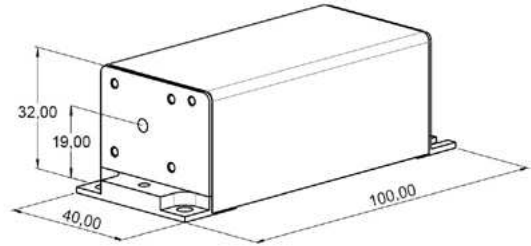
Analog Modulation	L1C-MPA option	L1C-AOM option
Rise / fall time	$\leq 1$ s	$\leq 300$ ns
-3dB modulation bandwidth	-	$\geq 3$ MHz
Digital Modulation		
Rise / fall time	$\leq 30$ ms	$\leq 300$ ns
-3dB modulation bandwidth	-	$\geq 3$ MHz

## 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**  $> 100 : 1$



## 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  $38^\circ\text{C}$
- ACX-HTSK-7 for operation in ambient air up to  $46^\circ\text{C}$
- 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 $\pm 3\text{k}$	$\pm 2.0\%$	$\pm 2.0\%$
Fiber optical characteristics	3.5 $\mu\text{m}$ core diameter 0.11 N.A	50 $\mu\text{m}$ 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

## 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 $38^\circ\text{C}$ ambient air with optional heat sink	10 to $50^\circ\text{C}$ baseplate
Power consumption	20 W max.	
Storage temperature	0 to $60^\circ\text{C}$	
Humidity	Up to 90%RH, non-condensing	
Supply voltage	100 to 240 VAC external power supply	5 to 12 VDC
Warm-up time	$\leq 10$ minutes	
Interfaces	USB ControlBoxx controller	USB, RS-232, electronic interface

## CONTACT US

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