

LCX-1064S

DPSS laser

Optical characteristics *

Emission wavelength	1064.6 nm (± 0.6 nm tolerance)
Spectral linewidth, FWHM	≤ 1 MHz
Wavelength stability over 8 hours, temperature within $\pm 3^\circ\text{C}$	≤ 1 pm
Coherence length	≥ 100 m
Side mode suppression ratio	≥ 30 dB

— Optical power

Part number	Free space output	Fiber-coupled output	
		Single mode	Multi mode fiber
LBX-1064S-100-CSB-(OE/PPF)	100 mW	70 mW	80 mW
LBX-1064S-200-CSB-(OE/PPF)	200 mW	140 mW	160 mW
LBX-1064S-300-CSB-(OE/PPF)	300 mW	210 mW	240 mW
LBX-1064S-500-CSB-(OE/PPF)	500 mW	350 mW	400 mW

Power stability $\pm 1\%$
over 8 hour, temperature within $\pm 3^\circ\text{C}$

Control modes Automatic Power Control (APC)

Optical noise $\leq 0.2\%$ rms
10 Hz-20 MHz bandwidth

— External modulation

Analog Modulation

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

Digital Modulation

	L1C-MPA option	L1C-AOM option
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 2 mrad

Beam quality factor $M^2 \leq 1.1$

Beam circularity, in far field $\geq 90\%$

Polarization state Linear, vertical at $\pm 5^\circ$

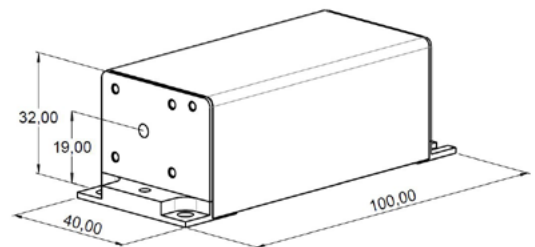
Polarization $> 300:1$

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	20 to 35°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	≤ 2 minutes	
Interfaces	USB ControlBoxx controller	USB, RS-232, electronic interface



Mechanical drawings



Plug and Play version provide with:

- RemoteBoxx controller
- Manual shutter
- DC power supply

Available options

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

Fiber coupling options **

	ACX-FCSM 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)	$> 300:1$	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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