

LPX-561S DPSS laser source

Optical characteristics *

Emission wavelength	561.4 nm (± 0.4 nm tolerance)
Spectral linewidth	≤ 1 MHz
Wavelength stability over 8 hours, temperature within $\pm 3^\circ\text{C}$	≤ 1 pm
Wavelength drift over consecutive on/off cycles, temperature within $\pm 3^\circ\text{C}$	≤ 1 pm
Coherence length	≥ 100 m
Side mode suppression ratio, ± 0.5 nm from the main peak	≥ 30 dB
Side mode suppression ratio, ± 5 nm from the main peak	≥ 60 dB typ.

Optical power

Part number	Free space output	Fiber-coupled output	
		Single mode	Multi mode fiber
LPX-561S-300-CSB-(OE/PPF)	300mW	210mW	240mW
LPX-561S-500-CSB-(OE/PPF)	500mW	350mW	400mW

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

Control mode Automated power control, fixed power level

Optical noise, 10Hz-20MHz bandwidth $\leq 0.5\%$ rms

External modulation

L1C-MPA option

Analog modulation

Rise / fall time ≤ 1 s
-3dB modulation bandwidth -

Digital modulation

Rise / fall time ≤ 30 ms
-3dB modulation bandwidth -

Transverse singlemode free-space beam

Beam diameter, $1/e^2$ level, 50mm from the beam aperture 0.7 ± 0.15 mm

Beam divergence, $1/e^2$ level full beam, far field ≤ 1 mrad

Beam quality factor $M^2 < 1.1$

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

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

Polarization extinction ratio $> 100:1$

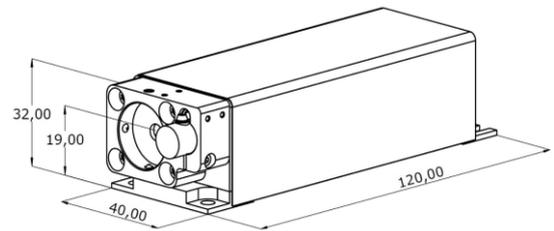
* specifications at nominal current

General specifications

	Plug & play version	OEM version
Compliance	IEC 60825-1, 2014 FDA 21 CFR 1040.10 / 1040.11	FDA 21 CFR 1040.10 / 1040.11
Operating temperature	10 to 45°C (ambient air) with optional HTSK-7 heatsink	10-50°C, baseplate
Power consumption	20 W max.	
Storage temperature	0°C to 60°C	
Humidity	Up to 90% RH, non-condensing	
Supply voltage	100 to 240 VAC, power supply provided	5V to 12V DC
Warm-up time	<20 minutes	
Interfaces	USB, ControlBoxx controller	USB, RS-232, electronic interface
Warranty	24 months or 10000 hours, whichever occurs first	



Mechanical drawings



Plug and Play version provided with:

- * RemoteBoxx controller
- * Manual shutter
- * DC power supply

Available options

- * HTSK-1 heatsink for operation in ambient air up to 24°C
- * HTSK-7 Heatsink for operation in ambient air up to 45°C
- * Electro-mechanical shutter : SHTE-LCX
- * Flange for improved stability : MP-120
- * Power adjustment : L1C-MPA
- * High-speed modulation : L1C-AOM

Fiber coupling options **

	FC-SM or FC-PM	FC-MM-R50
Power stability over 8 hours, temperature within $\pm 3^\circ\text{C}$	$\pm 2.0\%$	$\pm 2.0\%$
Fiber characteristics	3.3µm MFD 0.12 N.A.	50µm core diameter 0.22 N.A.
Polarization extinction ratio (FC-PM only)	$> 100:1$	n/a
Fiber output connector	FC/APC	FC/APC
Fiber length	2 m	2 m

** Other variants are available on demand

