

# LPX-561L

DPSS laser source

## Optical characteristics \*

|                     |                                   |
|---------------------|-----------------------------------|
| Emission wavelength | 561.4nm ( $\pm 0.4$ nm tolerance) |
| Linewidth, FWHM     | $\leq 0.1$ nm                     |

## Optical power

| Part number               | Free space output | Fiber-coupled output |                  |
|---------------------------|-------------------|----------------------|------------------|
|                           |                   | Single mode          | Multi mode fiber |
| LPX-561L-300-CSB-(OE/PPF) | 300mW             | 210mW                | 240mW            |
| LPX-561L-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  $\leq 1$  s

-3dB modulation bandwidth -

#### Digital modulation

Rise / fall time  $\leq 30$  ms

-3dB modulation bandwidth -

## Transverse singlemode free-space beam

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

Beam divergence,  $1/e^2$  level full beam, far field  $\leq 1.4$  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  $> 100:1$

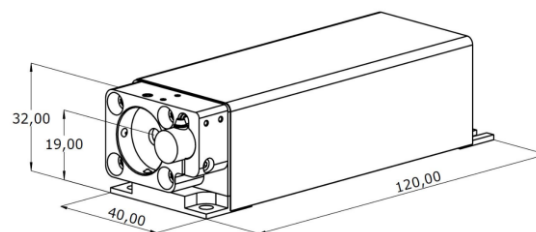
\* specifications at nominal power

## General specifications

|                       | Plug & play version                                                    | OEM version                          |
|-----------------------|------------------------------------------------------------------------|--------------------------------------|
| Compliance            | IEC 60825-1, 2014<br>FDA 21 CFR 1040.10 / 1040.11                      | FDA 21 CFR 1040.10 / 1040.11         |
| Operating temperature | 10 to $45^{\circ}\text{C}$ (ambient air) with optional HTSK-7 heatsink | 10- $50^{\circ}\text{C}$ , baseplate |
| Power consumption     | 20 W max.                                                              |                                      |
| Storage temperature   | $0^{\circ}\text{C}$ to $60^{\circ}\text{C}$                            |                                      |
| 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  $24^{\circ}\text{C}$
- \* HTSK-7 Heatsink for operation in ambient air up to  $45^{\circ}\text{C}$
- \* 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                                                    | 3.3 $\mu\text{m}$ MFD<br>0.12 N.A. | 50 $\mu\text{m}$ core diameter<br>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



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