

LBX-633S

Laser Diode

Optical characteristics *

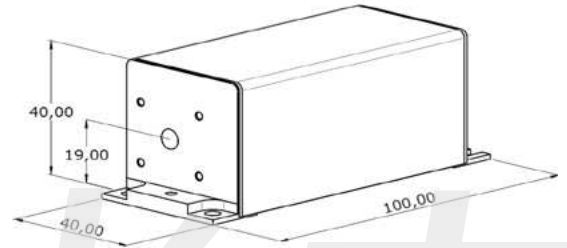
| | | |
|---|---------------------------------|----------------------|
| Emission wavelength | 632.5 nm (\pm 0.5 nm) | |
| Wavelength stability over 8 hours and \pm 3°K | \leq 10 pm | |
| Linewidth | \leq 100 MHz | |
| Coherence Length | \geq 1 m typ. | |
| Output power | Free space | Fiber coupled |
| | 40 mW | 20 mW |
| Control mode(s) | Automatic Current Control (ACC) | |
| Power stability over 8 hours and within \pm 3k | \pm 1% | |
| Power adjustment | optional with L1C-MPA | |
| Optical noise %RMS, 10Hz - 20MHz bandwidth | \leq 0.2% | |
| — Transverse singlemode free-space beam | | |
| Beam waist diameter (typ) at 1/e ² , 50mm from output aperture | 0.4 \pm 0.2 mm | |
| Beam divergence at 1/e ² , full angle, in far field | 3 \pm 1 mrad | |
| Beam quality factor (M²) | \leq 1.9 | |
| Beam circularity, in far field | \geq 65% | |
| Polarization extinction ratio (typ) | 50:1 | |
| Polarization state | linear, vertical at +/-5° | |

Fiber coupling option

| Specifications | SM and PM Fiber | MM Fiber (50 μ m, 0.22 NA) |
|---|---------------------------------|-----------------------------------|
| Coupling Efficiency | \geq 50% | \geq 80% |
| Polarization Ratio (PMF only) | 100 : 1 | n/a |
| Available optical connector | FC-APC FC/PC, FCP8 on demand | AR-coated SMA FC-APC |
| Power stability over 8 hours and within \pm 3k | \pm 2% | \pm 2% |
| Fiber length | 2.0 m | 2.0 m |



System specifications



— Plug and Play version provided with :

- ControlBoxx
- Power supply

Other options

- L1C-MPA and L1C-AOM
- Electro-mechanical shutter
- Heat sink

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 - 38°C ambient air with optional heat sink | 10 - 50°C baseplate |
| Power consumption | \leq 25 W | \leq 10 W |
| Storage temperature | 0 to 60°C | |
| Supply voltage | 100 to 240 VAC external power supply | 5 to 12 VDC |
| Warm-up time | \leq 2 minutes | |
| Interfaces | USB, RS-232, dedicated electronic interface | |

*specification at nominal power

Warranty : 12 months from shipment date



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