

LBX-785

Laser Diode

Optical characteristics *

| | | |
|--|--|----------------------|
| Emission wavelength | 785 nm (± 10 nm) | |
| Linewidth | ≤ 1.2 nm | |
| Output power | Free space | Fiber coupled |
| | 100 mW | 70 mW |
| | 250 mW | 175 mW |
| | 350 mW | 240 mW |
| Control mode(s) | Automatic Power Control (APC) Automatic Current Control (ACC) | |
| Power stability over 8 hours and within $\pm 3k$ | $\pm 0.5\%$ (100mW) $\pm 1\%$ (250, 350 mW) | |
| Power adjustment range | 0 - 100% | |
| Optical noise %RMS, 10Hz - 2 MHz bandwidth | $\leq 0.2\%$ | |

— Transverse singlemode free-space beam

| | |
|--|--|
| Beam waist diameter (typ) at $1/e^2$, 50mm from output aperture | 0.7 mm (100mW) 0.5 mm (250, 350 mW) |
| Beam divergence at $1/e^2$, full angle, in far field | ≤ 1.7 mrad (100mW) ≤ 2.3 mrad (250, 350 mW) |
| Beam quality factor (M^2) | ≤ 1.25 |
| Beam circularity, in far field | $\geq 90\%$ |
| Polarization extinction ratio (typ) | 100:1 not specified for LBX-785-250/350 |
| Polarization state | linear, vertical at $\pm 5^\circ$ not specified for LBX-785-250/350 |

— Modulation functions

Digital Modulation

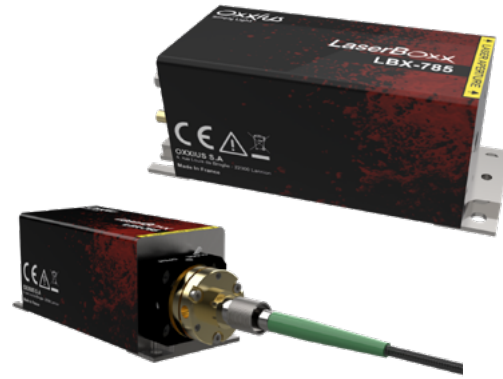
| | |
|---------------------------------|-------------|
| Max modulation frequency | 150 MHz |
| Rise/fall time, 10%-90% | ≤ 2 ns |

Analog Modulation

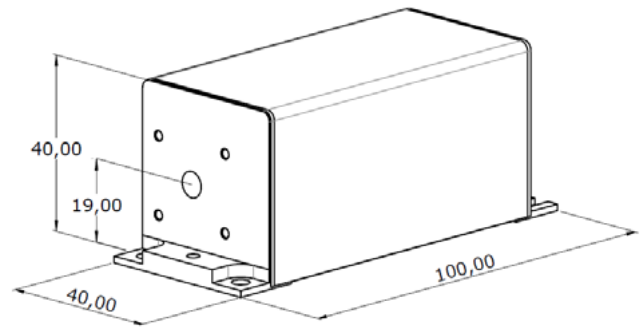
| | |
|---|---------------|
| Bandwidth 3dB cut-off frequency, ACC mode | ≥ 3 MHz |
| Rise/fall time, 10%-90% | ≤ 150 ns |

Fiber coupling option

| | SM and PM Fiber | MM Fiber (50 μ m, 0.22 NA) |
|--|---------------------------------|-----------------------------------|
| Coupling Efficiency | $\geq 70\%$ | $\geq 80\%$ |
| Polarization Ratio (PMF only) | 100 : 1 | n/a |
| Fiber Output Connector | FC-APC FC/PC, FCP8 on demand | FC-APC |
| Power stability over 8 hours and within $\pm 3k$ | $\pm 2\%$ | $\pm 2\%$ |
| Fiber length | 2.0 m | 2.0 m |



Mechanical drawings



— Plug and Play version provided with :

- ControlBoxx
- Power supply

Options

- Electro-mechanical shutter
- Heat sink
- Clean-up filter

General specifications

| | Plug and Play version | OEM version |
|------------------------------|---|------------------------------|
| Compliance | CE FDA 21 CFR 1040.10/1040.11 | FDA 21 CFR 1040.10 / 1040.11 |
| Operating temperature | 10 - 38°C ambient air with optional heat sink | 10 - 50°C baseplate |
| Power consumption | ≤ 25 W | ≤ 10 W |
| Storage temperature | 0 to 60°C | |
| Supply voltage | 100 to 240 VAC external power supply | 5 to 12 VDC |
| Warm-up time | ≤ 2 minutes | |
| Interfaces | USB, RS-232, dedicated electronic interface | |

Warranty : 12 months from shipment date

*Specifications at nominal power



AVOID EXPOSURE TO BEAM

CONTACT US

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