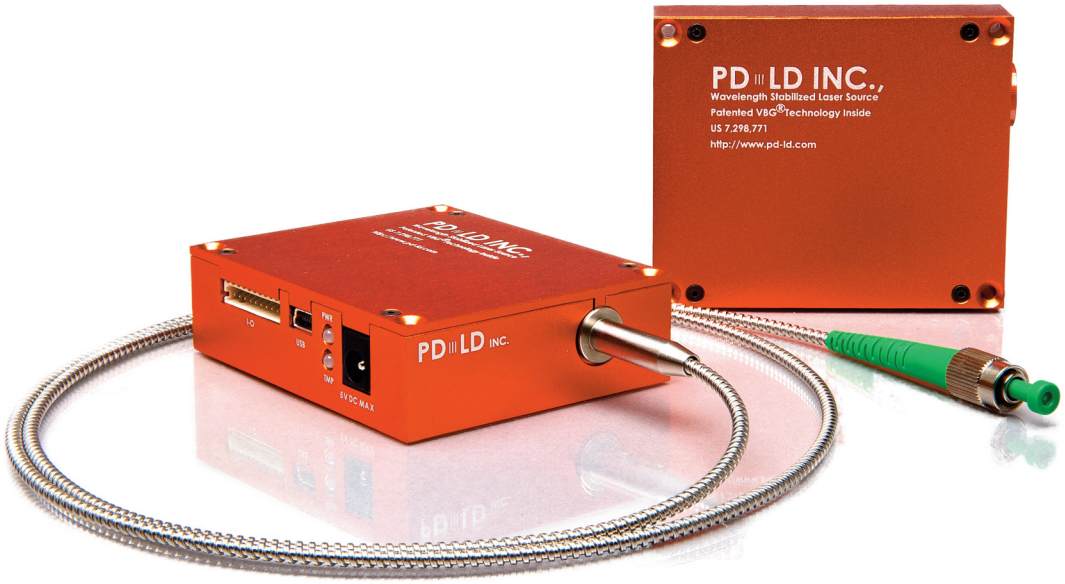
Diode Lasers

# SLM Series

## SINGLE LONGITUDINAL MODE LASER SERIES




| Key Performance Features | Applications |
|---|---|
| • High Power Single Mode Performance<br>• VBG Wavelength Stability<br>• Ultra Stable Output Power<br>• Fully Integrated OEM Solution<br>• Very Low Power Consumption<br>• Collimated or Fiber Coupled Output<br>• User Selectable Control Options<br>• Compact, One Box Design | • Raman Spectroscopy<br>• Flow Cytometry<br>• Confocal Microscopy<br>• Metrology<br>• Fluorescence Excitation<br>• Interferometry<br>• Microlithography<br>• HeNe Replacement |

| Center Wavelength (+/- 0.5 nm) | 780 | 785 |
|---|---|---|

30-B Pennington-Hopewell Road, Pennington, NJ 08534 | Tel: 609.564.7900 | info@pd-ld.com | **pd-ld.com**

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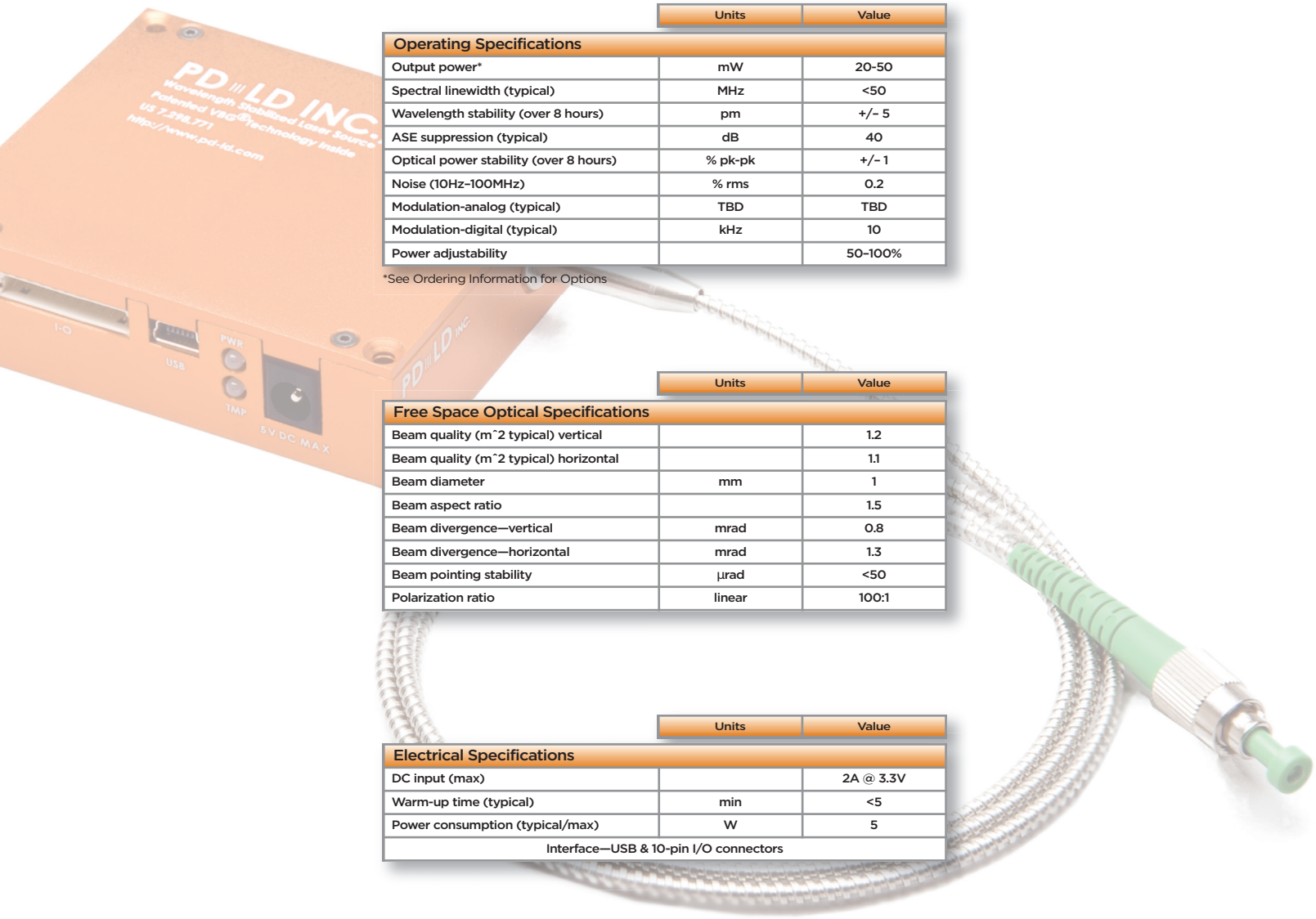


| Operating Specifications | Units | Value |
|---|---|---|
| Output power* | mW | 20-50 |
| Spectral linewidth (typical) | MHz | <50 |
| Wavelength stability (over 8 hours) | pm | +/– 5 |
| ASE suppression (typical) | dB | 40 |
| Optical power stability (over 8 hours) | % pk-pk | +/– 1 |
| Noise (10Hz–100MHz) | % rms | 0.2 |
| Modulation-analog (typical) | TBD | TBD |
| Modulation-digital (typical) | kHz | 10 |
| Power adjustability | | 50–100% |

*See Ordering Information for Options

| Free Space Optical Specifications | Units | Value |
|---|---|---|
| Beam quality (m^2 typical) vertical | | 1.2 |
| Beam quality (m^2 typical) horizontal | | 1.1 |
| Beam diameter | mm | 1 |
| Beam aspect ratio | | 1.5 |
| Beam divergence—vertical | mrad | 0.8 |
| Beam divergence—horizontal | mrad | 1.3 |
| Beam pointing stability | µrad | <50 |
| Polarization ratio | linear | 100:1 |

| Electrical Specifications | Units | Value |
|---|---|---|
| DC input (max) | | 2A @ 3.3V |
| Warm-up time (typical) | min | <5 |
| Power consumption (typical/max) | W | 5 |
| Interface—USB & 10-pin I/O connectors | | |

| Electrical Specifications | Units | Value |
|---|---|---|
| Case temperature* | °C | 15–40 |
| Humidity (non-condensing) | % | 5–95 |

*Must be operated on a heat sink

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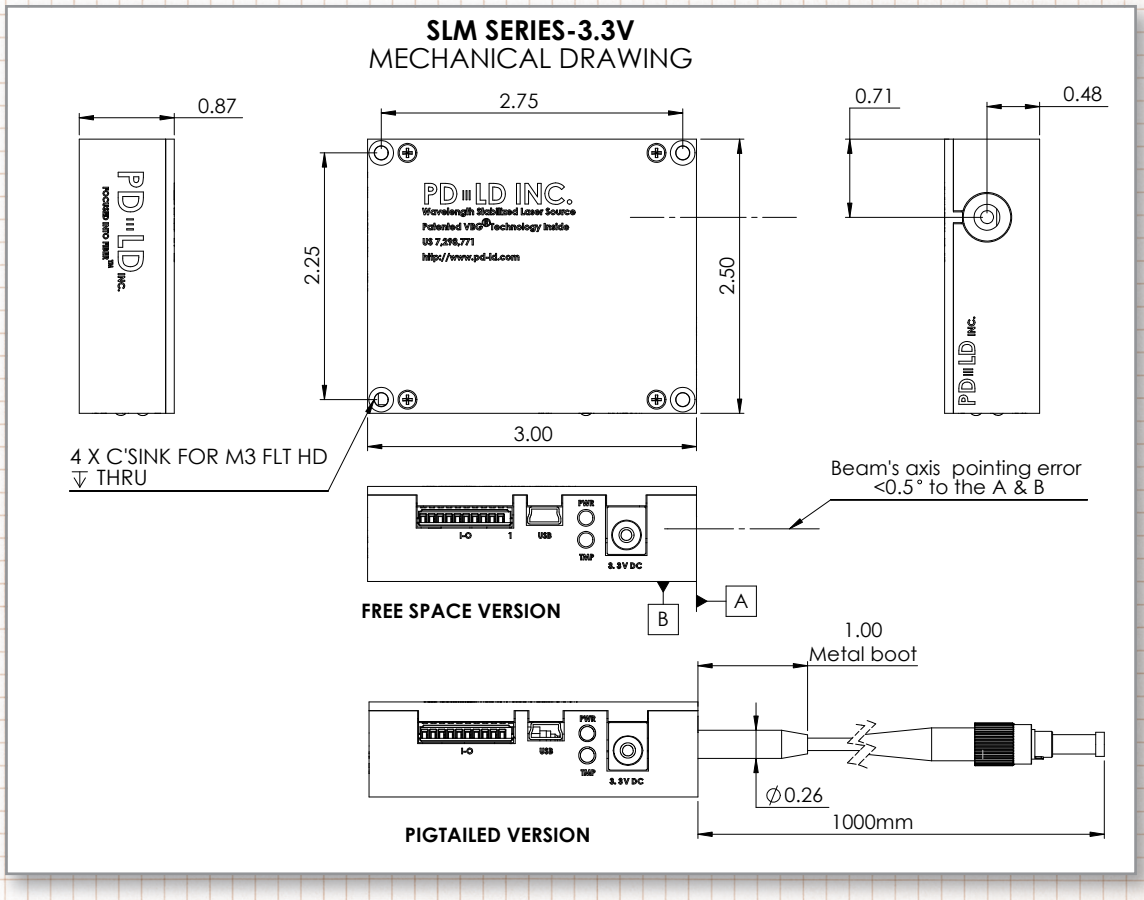
Weight = 135 grams  Dimensions = 86cm³ (5.25 in³)



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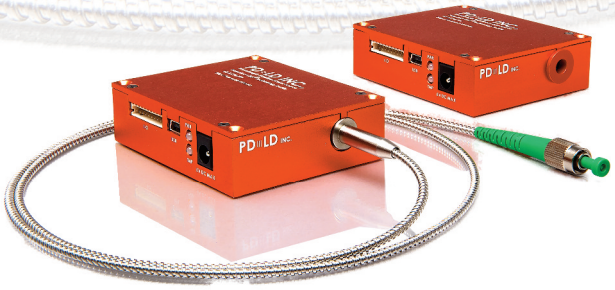
## SINGLE LONGITUDINAL MODE LASER SERIES

### Ordering Information

| Part Number | Fiber Type | Typical (mW) |
|---|---|---|
| SLM-780.0-SMF | 5.3 um MFD | 20 |
| SLM-780.0-PMF | 5.3 um MFD PANDA | 20 |
| SLM-785.0-SMF | 5.3 um MFD | 20 |
| SLM-785.0-PMF | 5.3 um MFD PANDA | 20 |
| SLM-780.0-FS | (Free-space) | 50 |
| SLM-785.0-FS | (Free-space) | 50 |



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