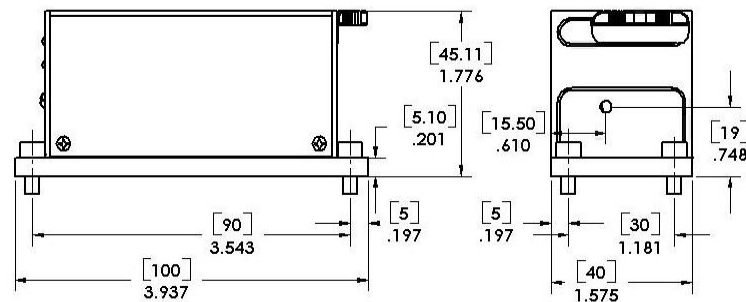# Stradus 420-100

The Stradus® diode laser module is a fully integrated, plug and play, and self-contained laser module. The patented sealed optical cavity and the innovative electronics give the Stradus® laser unparalleled power stability, beam pointing stability, and low noise over time and temperature.  Vortran's Graphical User Interface (GUI) software allows the user to control and monitor the module remotely via USB or RS-232.



| | |
|---|---|
| Wavelength (nm) | 420-425 |
| Power Output (mW) | 100 (-0%, +10%) |
| Spatial Mode | TEM$_{00}$ |
| Small Beam (mm, mrad) | ~1.0, ~0.6 |
| Standard Beam (mm, mrad) | ~1.4, ~0.5 |
| M² (typical) | < 1.25 |
| Beam Circularity | > 90% |
| Beam Centration (mm) | < 0.5 |
| Beam Alignment (mrad) | < 5 |
| Pointing Stability (µrad/$^o$C) | < 5 |
| Power Stability (over 24 hours) | < 0.5% |
| Polarization Orientation | Vertical ±2$^o$ |
| Polarization Extinction Ratio | >100:1 |
| RMS Noise (10Hz to 10MHz) | <0.1% |
| Digital Modulation | 200MHz |
| Digital Rise Time | < 2nsec |
| Modulation Depth | ∞ (full off) |
| Analog Modulation | 500kHz |
| Analog Rise Time | < 0.7 µs |
| Input Power (Head) | 12V DC, 1.5A (max) |
| Input Power (Control Box) | 90-250 VAC, 50/60Hz |
| Storage Temperature | -10$^o$C to +60$^o$C |
| Operating Temperature | +10$^o$C to +45$^o$C |
| Laser Head Weight | 210g |
| Communication | Mini-USB and RS-232 |
| CDRH Class | Class IIIb |
| ESD Protection | Class 4 |
| EU Compliance | CE Mark Certified with control box |
| RoHS Compliance | EU and China |

- **Medical, Biomedical & Industrial**
- **Patented Sealed Optical Cavity**
- **Self-contained & Compact**
- **Excellent Beam Quality**
- **Low Noise**
- **USB or RS-232 Interface with GUI**
- **Analog & Digital Modulation**
- **OEM Head or End-user Systems**



*Graphical User Interface Software*