

The Stradus™ diode laser module is a self-contained module with the laser diode thermally controlled and all of the optics (including the diode itself, the photo-detector, and all beam shaping optics) in a sealed module. Through these design innovations along with superior electronics, the Stradus exhibits unparalleled power stability and beam pointing stability over time and temperature. Optical noise is at the lowest level possible and the digital modulation at 200 MHz (<2ns rise time) is the fastest in the industry.



Above: Stradus with Remote Control Box

Left: Rear Panel of Stradus showing USB, Remote Control Box, and SMB Connectors along with LED Indicators

Wavelength (nm)	405 ± 5
Power Output (mW)	100 (-0% +10%)
Mode	TEM ₀₀
Beam Diameter (1/e ²)	~1.3mm
Beam Divergence	~0.5 mrad
M ² (Beam Quality)	< 1.25 (typical)
Beam Circularity	>90%
Beam Centration	<0.5mm
Beam Alignment	<5 mrad
Pointing Stability	<5µrad/°C
Power Stability	< 0.5% (over 24 hours)
Polarization	Vertical ±2°
Polarization Extinction Ratio	>100:1 (>1000:1 available as option)
RMS Noise (10Hz – 10MHz)	< 0.1%
RMS Noise (10MHz-500MHz)	< 1%
Digital Modulation	200 MHz (< 2ns rise time)
Modulation Depth	∞ (full off)
Analog Modulation (Laser Power Control)	0.7 µs rise time; (500KHz)
Power Requirement (to laser head)	12V DC (1.5A maximum)
Power Requirement (to Control Box – generates the 12VDC for laser head)	110/220V AC (85 – 264 VAC)
Temperature (Storage)	-10°C to +60°C
Temperature (Operating)	+10°C to +45°C
Laser Head Dimensions (inch)	3.94 L x 1.57 W x 1.78 H
Laser Head Weight	210 g
Control Box Weight	550 g
Laser Cable Length	2 feet
Communication	USB and RS-232
CDRH Compliance	Fully (when using supplied control box)
CDRH Class	Class IIIb
ESD Protection	Class 4 (to 20KV)
Electrical Safety Certification	IEC 61010-1
Laser Safety Certification	IEC 60825-1
Fully CE Certified	EN55011, EN61000, EN61326
RoHS Compliance	EU RoHS and China RoHS

Made in USA

