

Stradus® 488-25

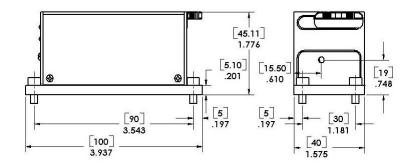
The Stradus® diode laser module is a fully integrated, plug and play, and self-contained module. The patented sealed optical cavity and the innovative electronics give the Stradus® laser unparalleled power stability, beam pointing stability and low noise over time and temperature. Vortran's Graphical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

SpecificationsWavelength (nm)488± 5Power Output (mW)25 (-0%, +10%)Spatial ModeTEM₀₀Small Beam (mm, mrad)~0.8, ~1.0StandardBeam(mm, mrad)~1.3, ~0.5M² (typical)<1.25Beam Circularity> 90%Beam Centration (mm)< 0.5Beam Alignment (mrad)< 5Pointing Stability (µrad/°C)< 5Power Stability (over 24 hours)< 0.5%Polarization OrientationVertical±2°Polarization Extinction Ratio×100:1RMS Noise (10Hz to 10MHz)< 0.15%Digital Modulation200MHzDigital Rise Time< 2nsecModulation Depth∞ (full off)Analog Modulation500kHzAnalog Rise Time< 0.7 μsInput Power(Head)12V DC, 1.5A (max)Input Power(Control Box)90-250 VAC, 50/60HzStorage Temperature-10°C to +60°COperating Temperature+10°C to +45°CLaser Head Weight210gCommunicationMini-USB and RS-232CDRH ClassClass IllbESD ProtectionClass 4EU ComplianceCE Mark Certified with control boxRoHS ComplianceEU and China		
Power Output (mW)25 (-0%, +10%)Spatial ModeTEM₀₀Small Beam (mm, mrad)"0.8, "1.0StandardBeam(mm, mrad)"1.3, "0.5M² (typical)< 1.25Beam Circularity> 90%Beam Alignment (mrad)< 5Pointing Stability (μrad/°C)< 5Power Stability (over 24 hours)< 0.5%Polarization OrientationVertical±2°PolarizationExtinction Ratio>100:1RMS Noise (10Hz to 10MHz)< 0.15%Digital Modulation200MHzDigital Rise Time< 2nsecModulation Depth∞ (full off)Analog Modulation500kHzAnalog Rise Time< 0.7 μsInput Power(Head)12V DC, 1.5A (max)Input Power(Control Box)90·250 VAC, 50/60HzStorage Temperature-10°C to +60°COperating Temperature+10°C to +45°CLaser Head Weight210gCommunicationMini-USB and RS-232CDRH ClassClass IllbESD ProtectionClass 4EU ComplianceCE Mark Certified with control box	Specifications	
Spatial Mode Small Beam (mm, mrad) Standard Beam (mm, mrad) M² (typical) Seam Circularity Seam Centration (mm) Seam Alignment (mrad) Pointing Stability (µrad/°C) Power Stability (µrad/°C) Polarization Orientation Polarization Extinction Ratio Pigital Modulation Digital Rise Time Modulation Depth Analog Modulation Analog Rise Time Input Power (Head) Input Power (Control Box) Storage Temperature Communication Communication Compliance Compliance Ce Mark Certified with control box Figure 1.25 W1.3, ~0.5	Wavelength (nm)	488±5
Small Beam (mm, mrad)~0.8, ~1.0Standard Beam (mm, mrad)~1.3, ~0.5M² (typical)<1.25	Power Output (mW)	25 (-0%, +10%)
StandardBeam(mm, mrad)~1.3, ~0.5M² (typical)<1.25	Spatial Mode	TEM ₀₀
M² (typical)< 1.25Beam Circularity> 90%Beam Centration (mm)< 0.5	SmallBeam (mm, mrad)	~0.8, ~1.0
Beam Circularity> 90%Beam Centration (mm)< 0.5	StandardBeam(mm, mrad)	~1.3 , ~0.5
Beam Centration (mm)< 0.5Beam Alignment (mrad)< 5	M ² (typical)	< 1.25
Beam Alignment (mrad)< 5Pointing Stability (μrad/°C)< 5	Beam Circularity	> 90%
Pointing Stability (µrad/°C)< 5Power Stability (over 24 hours)< 0.5%	Beam Centration (mm)	< 0.5
Power Stability (over 24 hours)< 0.5%Polarization OrientationVertical±2°PolarizationExtinction Ratio>100:1RMS Noise (10Hz to 10MHz)<0.15%	Beam Alignment (mrad)	
Polarization OrientationVertical±2°PolarizationExtinction Ratio>100:1RMS Noise (10Hz to 10MHz)<0.15%	Pointing Stability (µrad/°C)	< 5
PolarizationExtinction Ratio>100:1RMS Noise (10Hz to 10MHz)<0.15%	Power Stability (over 24 hours)	2.12.2
RMS Noise (10Hz to 10MHz) <0.15% 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°C to +60°C Operating Temperature +10°C to +45°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	Polarization Orientation	Vertical±2 ⁰
Digital Modulation200MHzDigital Rise Time< 2nsec	PolarizationExtinction Ratio	>100:1
Digital Rise Time< 2nsecModulation Depth∞ (full off)Analog Modulation500kHzAnalog Rise Time< 0.7 μs	RMS Noise (10Hz to 10MHz)	<0.15%
Modulation Depth∞ (full off)Analog Modulation500kHzAnalog Rise Time< 0.7 μs	Digital Modulation	200MHz
Analog Modulation Analog Rise Time Input Power (Head) Input Power (Control Box) Storage Temperature Operating Temperature Laser Head Weight Communication CDRH Class ESD Protection Analog Modulation Storage Time 12V DC, 1.5A (max) 90-250 VAC, 50/60Hz 10°C to +60°C +10°C to +45°C 210g Mini-USB and RS-232 Class IIIb Class 4 EU Compliance CE Mark Certified with control box	Digital Rise Time	< 2nsec
Analog Rise Time Input Power(Head) Input Power(Control Box) Storage Temperature Operating Temperature Laser Head Weight Communication CDRH Class ESD Protection EU Compliance C 0.7 µs 12V DC, 1.5A (max) 90-250 VAC, 50/60Hz 4-10°C to +60°C +10°C to +45°C 210g Mini-USB and RS-232 Class IIIb Class 4 EU Compliance CE Mark Certified with control box	Modulation Depth	∞ (full off)
Input Power (Head) Input Power (Control Box) Input Power (Control Box) Storage Temperature Operating Temperature Laser Head Weight Communication CDRH Class ESD Protection EU Compliance 12V DC, 1.5A (max) 90-250 VAC, 50/60Hz 1-10°C to +60°C 210g 210g Cincil Control C	Analog Modulation	500kHz
Input Power (Control Box) 90-250 VAC, 50/60Hz Storage Temperature -10°C to +60°C Operating Temperature +10°C to +45°C Laser Head Weight Communication Mini-USB and RS-232 CDRH Class Class IIIb ESD Protection EU Compliance CE Mark Certified with control box	Analog Rise Time	< 0.7 µs
Storage Temperature Operating Temperature Laser Head Weight Communication CDRH Class ESD Protection EU Compliance 50/60Hz -10°C to +60°C +10°C to +45°C 210g Mini-USB and RS-232 Class IIIb Class 4 CE Mark Certified with control box	Input Power(Head)	12V DC, 1.5A (max)
Storage Temperature Operating Temperature Laser Head Weight Communication Mini-USB and RS-232 CDRH Class ESD Protection Class 4 EU Compliance C10°C to +60°C H10°C to +45°C 210g Cincident Class Class Illb Class 4 CE Mark Certified with control box	Input Power(Control Box)	90-250 VAC,
Operating Temperature +10°C to +45°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		
Laser Head Weight Communication Mini-USB and RS-232 CDRH Class Class IIIb ESD Protection Class 4 EU Compliance CE Mark Certified with control box	Storage Temperature	
Communication Mini-USB and RS-232 CDRH Class Class IIIb ESD Protection Class 4 EU Compliance CE Mark Certified with control box	Operating Temperature	+10°C to +45°C
RS-232 CDRH Class Class IIIb ESD Protection Class 4 EU Compliance CE Mark Certified with control box	Laser Head Weight	210g
CDRH Class ESD Protection Class 4 EU Compliance CE Mark Certified with control box	Communication	Mini-USB and
ESD Protection Class 4 EU Compliance CE Mark Certified with control box		RS-232
EU Compliance CE Mark Certified with control box	CDRH Class	Class IIIb
with control box	ESD Protection	Class 4
	EU Compliance	CE Mark Certified
RoHS Compliance EU and China		with control box
	RoHS Compliance	EU and China

Note: Specifications guaranteed only at full power



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



Graphical User Interface Software

