

Stradus® 640-30

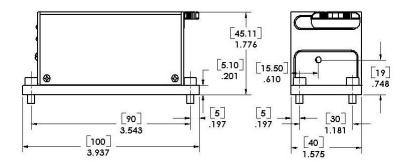
The Stradus® diode laser module is a fully integrated, plug and play, and self-contained module. The patented sealed optical cavity and the innovative electronics give the Stradus® laser unparalleled power stability, beam pointing stability and low noise over time and temperature. Vortran's Graphical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

SpecificationsWavelength (nm)640 ± 3Power Output (mW)30(-0%, +10%)Spatial ModeTEM₀₀Small Beam (mm, mrad)~1.0, ~1.0StandardBeam(mm, mrad)~1.3, ~0.7M² (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±5°Polarization Extinction Ratio>100:1RMS Noise (10Hz to 10MHz)< 0.1%Digital Modulation200MHzDigital Rise Time< 2nsecModulation Depth∞ (full off)	C::::	
Power Output (mW) 30 (-0%, +10%) Spatial Mode TEM ₀₀ Small Beam (mm, mrad) ~1. 0, ~1.0 Standard Beam (mm, mrad) ~1.3, ~0.7 M² (typical) <1.25 Beam Circularity > 90% Beam Centration (mm) <0.5 Beam Alignment (mrad) <5 Pointing Stability (µrad/°C) <5 Power Stability (over 24 hours) <0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time <2nsec	Specifications	
Spatial Mode Small Beam (mm, mrad) Standard Beam (mm, mrad) M² (typical) Seam Circularity Seam Centration (mm) Beam Alignment (mrad) Pointing Stability (µrad/°C) Power Stability (over 24 hours) Polarization Orientation Polarization Extinction Ratio RMS Noise (10Hz to 10MHz) Digital Modulation Digital Rise Time Market Market Market (mrad) TEM₀₀ *1.0, *1.0 *1.0, *1.0 *1.25 Seam Circularity > 90% Seam Centration (mm) < 0.5 Four Stability (µrad/°C) > 5 Power Stability (over 24 hours) Vertical±5° Polarization Extinction Ratio > 100:1 RMS Noise (10Hz to 10MHz) Digital Rise Time *200MHz	Wavelength (nm)	640±3
Small Beam (mm, mrad) ~1. 0, ~1.0 Standard Beam (mm, mrad) ~1.3, ~0.7 M² (typical) <1.25 Beam Circularity > 90% Beam Centration (mm) <0.5 Beam Alignment (mrad) <5 Pointing Stability (µrad/°C) <5 Power Stability (over 24 hours) <0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time <2nsec	Power Output (mW)	30(-0%, +10%)
StandardBeam(mm, mrad) ~1.3, ~0.7 M² (typical) < 1.25 BeamCircularity > 90% Beam Centration (mm) < 0.5 Beam Alignment (mrad) < 5 Pointing Stability (µrad/°C) < 5 Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) < 0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	Spatial Mode	TEM ₀₀
M² (typical)< 1.25BeamCircularity> 90%Beam Centration (mm)< 0.5	Small Beam (mm, mrad)	~1. 0, ~1.0
BeamCircularity > 90% Beam Centration (mm) < 0.5 Beam Alignment (mrad) < 5 Pointing Stability (µrad/°C) < 5 Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) < 0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	StandardBeam(mm, mrad)	~1.3, ~0.7
Beam Centration (mm) < 0.5 Beam Alignment (mrad) < 5 Pointing Stability (μrad/°C) < 5 Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) < 0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	M ² (typical)	< 1.25
Beam Alignment (mrad) < 5 Pointing Stability (µrad/°C) < 5 Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) < 0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	BeamCircularity	> 90%
Pointing Stability (µrad/°C) < 5 Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) < 0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	Beam Centration (mm)	< 0.5
Power Stability (over 24 hours) < 0.5% Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time < 2nsec	Beam Alignment (mrad)	< 5
Polarization Orientation Vertical±5° Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time <2nsec	Pointing Stability (µrad/°C)	< 5
Polarization Extinction Ratio >100:1 RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time <2nsec	Power Stability (over 24 hours)	< 0.5%
RMS Noise (10Hz to 10MHz) <0.1% Digital Modulation 200MHz Digital Rise Time <2nsec	Polarization Orientation	Vertical±5 ^o
Digital Modulation 200MHz Digital Rise Time < 2nsec	Polarization Extinction Ratio	>100:1
Digital Rise Time < 2nsec	RMS Noise (10Hz to 10MHz)	<0.1%
M I I I I D II	Digital Modulation	200MHz
Modulation Depth ∞ (full off)	Digital Rise Time	< 2nsec
	Modulation Depth	∞ (full off)
Analog Modulation 500kHz	Analog Modulation	500kHz
Analog Rise Time < 0.7 µs	Analog Rise Time	< 0.7 µs
Input Power(Head) 12V DC, 1.5A (max)	Input Power(Head)	12V DC, 1.5A (max)
Input Power (Control Box) 90-250 VAC,	Input Power (Control Box)	90-250 VAC,
50/60Hz		
Storage Temperature -10°C to +60°C	Storage Temperature	-10°C to +60°C
Operating Temperature +10°C to +45°C	Operating Temperature	+10°C to +45°C
Laser Head Weight 210g	Laser Head Weight	210g
Communication Mini-USB and	Communication	Mini-USB and
RS-232		RS-232
CDRH Class IIIb	CDRH Class	Class IIIb
ESD Protection Class 4	ESD Protection	Class 4
EU Compliance CE Mark Certified	EU Compliance	CE Mark Certified
with control box		with control box
RoHS Compliance EU and China	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

