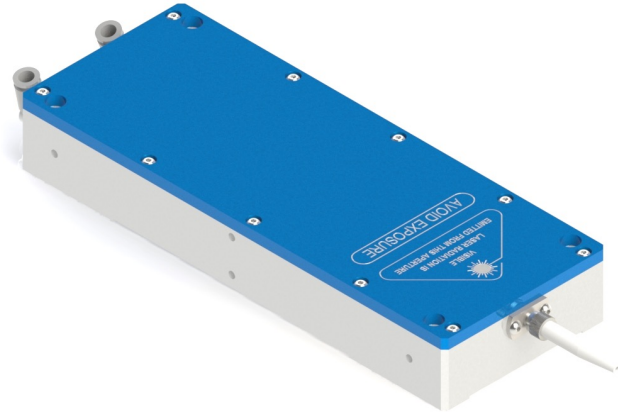


High brightness Fiber-coupled Diode Blue Laser

Features

- Direct diode laser
- High power conversion efficiency
- Compact design
- Temperature sensor
- Water cooling



Applications

- Materials processing
- Micro soldering
- Laser display / projector
- 3D Printing
- Scientific applications

Technical Specifications

Part Number GP-450-100-20

Optical Specifications¹

CW Output Power ^{1,2}	20	W
Center Wavelength	450	nm
Center Wavelength Tolerance	±10	nm
Spectral Width (FWHM)	<15	nm
Beam Divergence	0.22	NA
Beam Diameter (µm)	105	µm

Electrical Characteristics (typical)

Power Conversion Efficiency	>20	%
Threshold Current	~0.3	A
Operating Current @ 20W	3.0-3.5	A
Operating Voltage @ 20W	34-40	V
Recommended Hookup Wire	16 or heavier	AWG
	1.3 or heavier	mm ²

Thermal Specifications

Water temperature	+20 to +25	°C
Environmental Temperature ³	+15 to +30	°C
Storage Temperature ³	+5 to +60	°C

Mechanical Specifications

Dimensions (LxWxH)	215 x 82 x 31.5	mm
	8.46 x 3.23 x 1.24	inch
Weight	950	g
Fiber core diameter	105 or larger	µm
Fiber numeric aperture	0.22 or larger	NA
Fiber Connector	SMA-905	

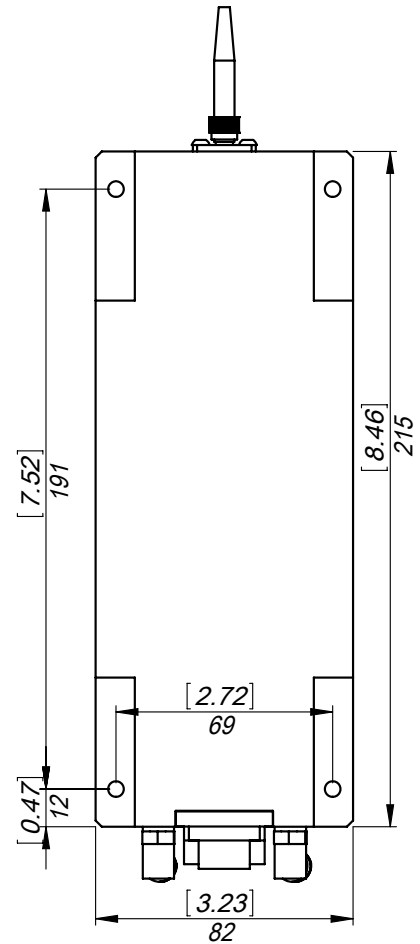
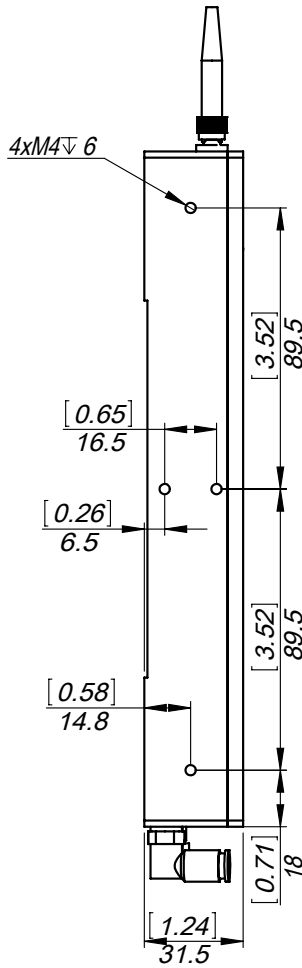
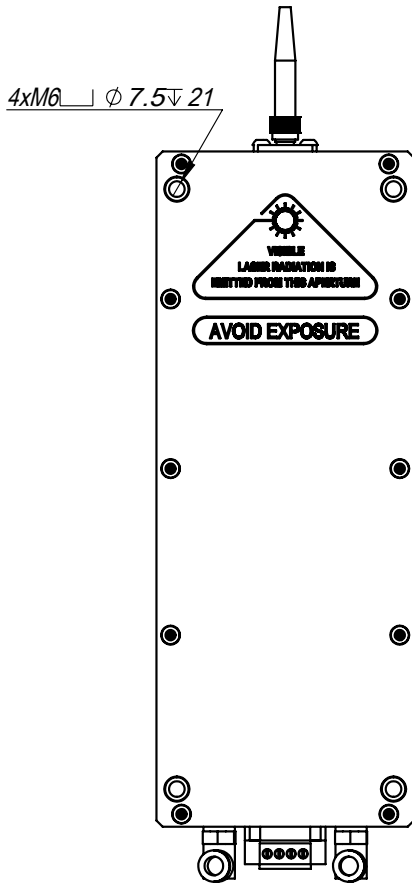
1. All values measured at water temperature and environmental temperature = 25°C.
2. Reduced lifetime if used above normal operation temperature
3. A non-condensing environment is required

Packaging Dimensions

Top View

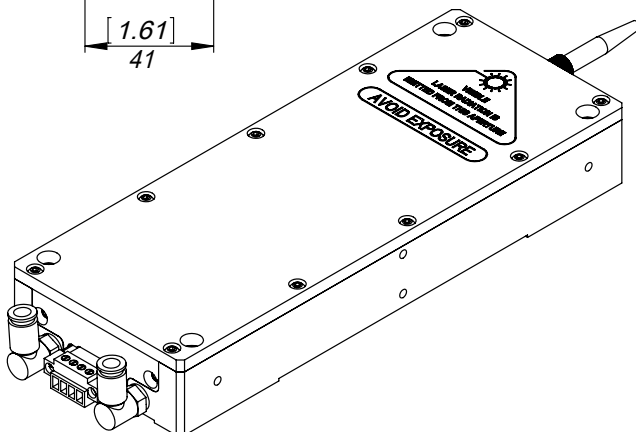
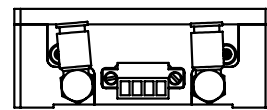
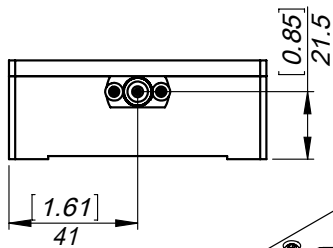
Side View

Bottom View



Front View

Back View



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 Email: imu@appliedharmonics.com

Genesee Photonics follows a policy of continuous product improvement. Specifications are subject to change without notice. We offer a limited warranty for all laser products.

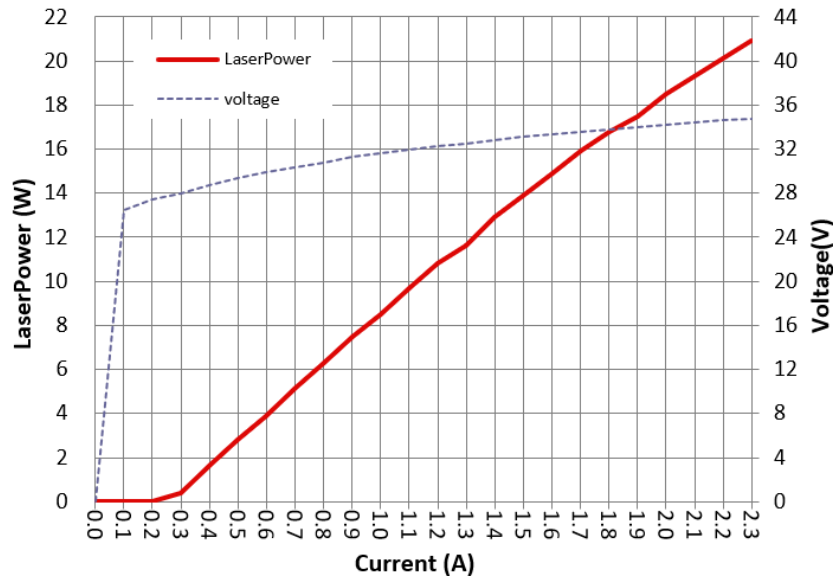


LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED RADIATION
 CLASS 4 LASER PRODUCT

Testing Data

Typical Testing Data		
Part Number	GP-450-100-18	
Laser Output Power at 2.0 Amp	18.5	W
Center Wavelength	450	nm
Spectral Width	10	nm
Operating Current	2.0	A
Operating Voltage at 18 W	35	V
Power Conversion Efficiency at 2.0 Amp	>20	%
Slope Efficiency at 2.0 Amp	9.0	W/A
Water temperature	+25	°C
Environment Temperature	+25	°C
Fiber core diameter	105	μm
Fiber numeric aperture	0.22	NA

Output power



Emission Spectrum

