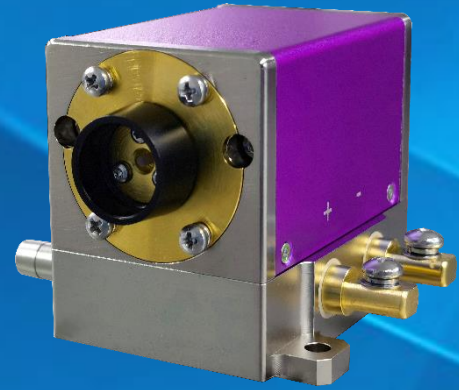


DPSS Laser Gain Module

1064nm/50W



GENERAL DESCRIPTION

Laser gain module is the heart of DPSS (Diode-Pumped Solid-State) lasers or laser amplifiers. We provide DPSS laser gain modules based on CW or QCW diode pumping technology. Design flexibility allows for variety crystal materials, rod lengths, diameters, diode laser structures and operation modes to be widely used in both resonator and amplifier designs. Customized laser gain modules can be designed and provided on request.

SERVICE

Optionally, we offer the complete value chain:

We design and develop laser products which are optimized to meet the specific requirements of your application. In order to evaluate the performance of the lasers in the design phase we offer the rapid manufacture of prototypes and small series production.

APPLICATIONS

- Solid state laser pumping

FEATURES

- 2mm Nd:YAG rod with thermal lens effect compensation
- Uniform pumping distribution
- High power stability
- Compact size

Specifications

Optical & Electrical

Parameter	Unit	Minimum	Typical	Maximum	Test Conditions
Output power	W	-	50	-	CW mode at 900mm cavity length
Center wavelength	nm	-	1064	-	-
Emitting Height	Inch	1.5			-
Threshold current	A	-	8	12	CW mode at 900mm cavity length
Operating current	A	21	23	25	CW mode at 900mm cavity length
Forward voltage	V	-	21	23	Output Power=50W

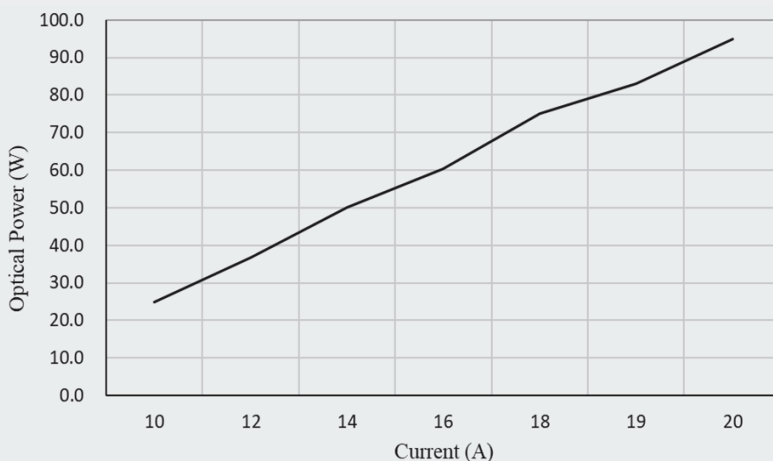
Environmental

Parameter	Unit	Minimum	Typical	Maximum	Test Conditions
Water Cooling Temp.	°C	23	25	30	Output Power=50W
Flow Rate	L/Min.	5	6	-	Output Power=50W
Water Pressure	Mpa	0.3	-	0.6	Output Power=50W
Storage temperature range	°C	5	-	50	-

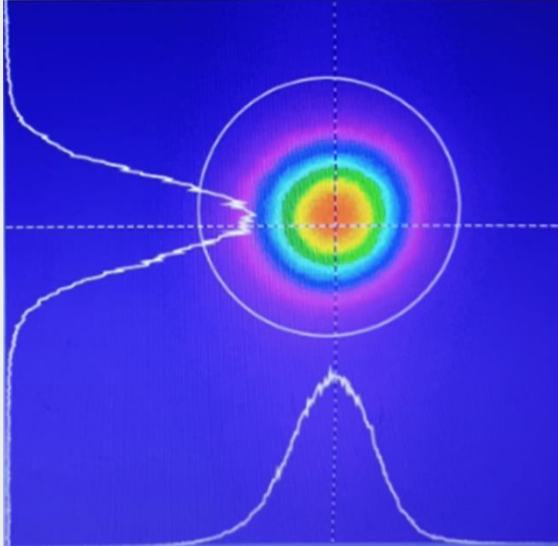
Physical

Parameter	Unit	Typical	Test Conditions
Nd:YAG Rod Size	mm	Ø2x72	-
Weight	kg	1.0	-

Optical power vs current



Far-field beam profile



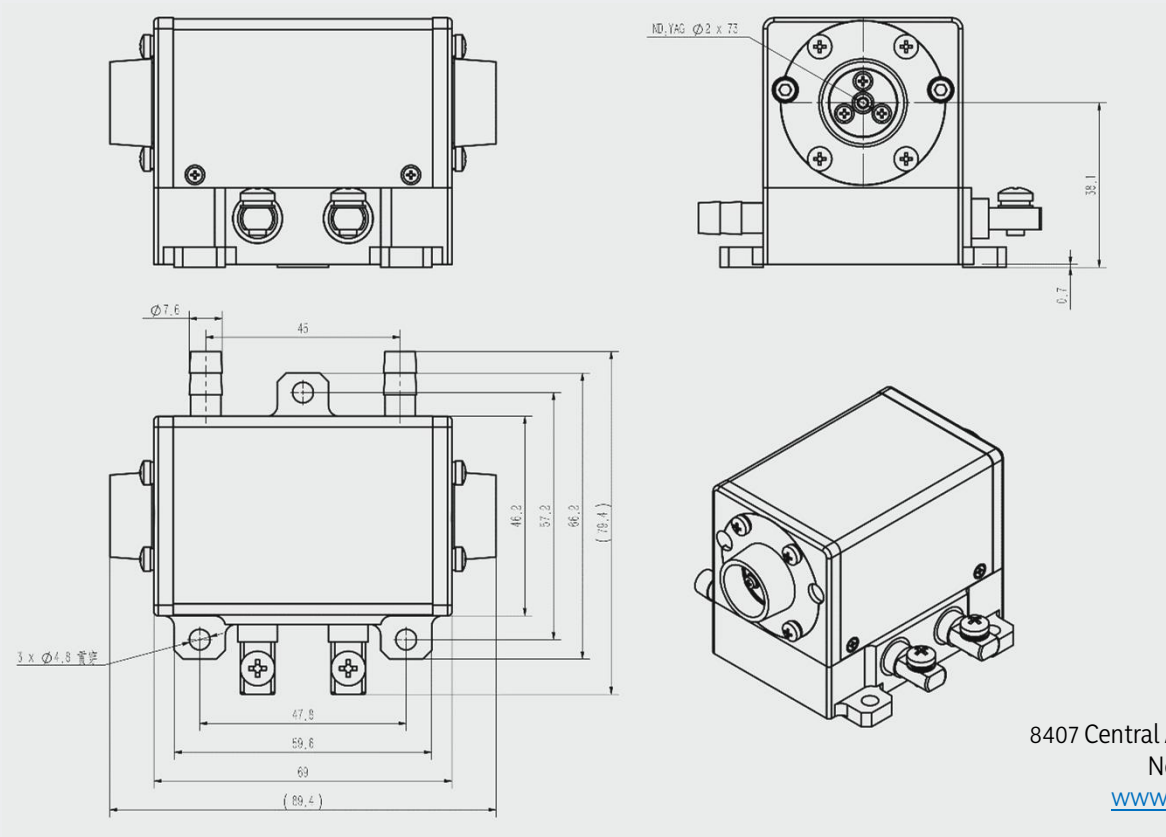
TEM₀₀, $M^2 \leq 1.3$

Tested condition

- CW $P_0=50W$ @ 1064nm
- 900mm cavity length

Dimensions

Unit: mm



4in1 Photonics LLC.
8407 Central Avenue, Suite#2084
Newark, CA 94560, US
www.4in1photonics.com

China office
Rm.705, Block E, Taihua Longqi Square
Huangping Rd. Changping Dist., BJ, 100096
Tel: +86 10 82911602