HLPN-2090 Series
Ho:YAG Nanosecond Pulsed Lasers

NEW PRODUCT

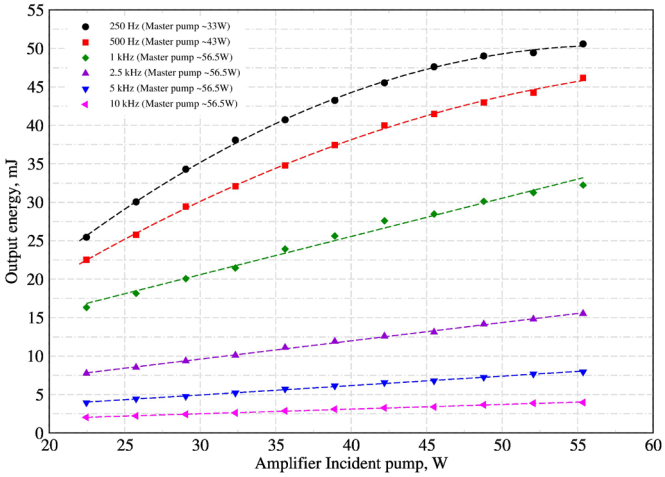
Acousto-optically or Passively
Q-switched Optical Head

Applications

- Plastics Marking
- Plastics Cutting & Welding
- Medical Therapy, Surgery
- Spectroscopy
- LIDAR
- OPO Pump Source

Features

- Output Power up to 40 W
- Pulse Energy 1 - 50 mJ
- Repetition Rate 0.1 - 50 kHz
- Pulse Duration 10 - 50 ns
- TEM_{00} Beam Mode
- Flat-top Beam Option
- Power Amplification Option
- Single-frequency Option



IPG Photonics' HLPN Holmium:YAG laser provides 10 - 50 nanosecond pulses at 2.09 µm with pulse energies up to 50 mJ and output powers up to 40 W. The acousto-optically or passively q-switched Ho:YAG head is pumped by IPG's efficient and reliable thulium fiber laser. The HLPN 2.09 µm pulsed laser addresses a wide range of materials processing, scientific and medical applications. A single-frequency option is also available.

HLPN-2090 Series
Ho:YAG Nanosecond Pulsed Lasers

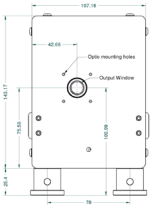
Optical Characteristics

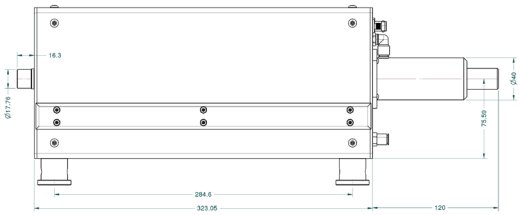
	HLPN-5-10-9	HLPN-15-15-15	HLPN-40-15-30	HLPN-50-10-40	HLPN-0.8-50-40
Mode of Operation*	Passively Q-switched	Acousto-optically Q-switched			
Wavelength, nm	2090				
Linewidth FWHM**, nm	< 0.01	< 1			
Maximum Average Power, W	9	15	30	40	
Peak Power, MW	0.5	1	3	5	0.05
Maximum Pulse Energy***, mJ	5	15	40	50	0.8
Pulse Duration, ns		15		10	50
Repetition Rate****, kHz	0.2 - 2	0.3 - 1	0.1 - 10	0.1 - 1	50
Polarization	Linear, >100:1				
Output Beam Mode*****, M^2	≤ 1.2				
Beam Diameter (FW, $1/e^2$), mm	1.5				
Beam Divergence, mrad	< 1				
Warm up Time, min	15				

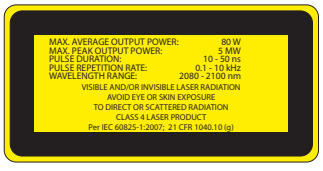
*All lasers can operate in CW mode with maximum average power.
**Single-frequency option is available upon request.
***Output energies >50 mJ are available upon request.
****Custom repetition rates are available upon request.
*****Flat-top output beam mode is available upon request.

General Characteristics

Pump Laser	IPG Photonics CW Thulium Fiber Laser				
Optical Head Dimensions (WxDxH), mm	107 x 323 x 143		190 x 460 x 152		190 x 460 x 222
Pump Laser Cooling	Air-cooled or Water-cooled				
Optical Head Cooling	Water-cooled				
Supply Voltage 50-60 Hz, VAC	110 - 240				
Power Consumption, W	500	800	1300	2300	2200







+1 (205) 307-6677
sales.us@ipgphotonics.com
www.ipgphotonics.com/midIR