

HLPN-2090 Series Ho:YAG Nanosecond Pulsed Lasers

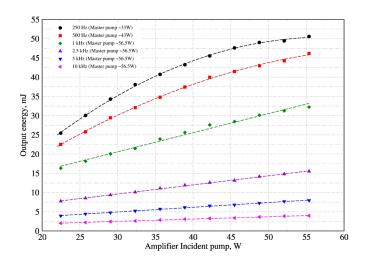






Applications

- 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
- ▶ TEM₀₀ Beam Mode
- ▶ Flat-top Beam Option
- ▶ Repetition Rate 0.1 50 kHz ▶ Power Amplification Option
- ▶ Pulse Duration 10 50 ns
- ▶ Single-frequency Option

IPG Photonics' HLPN Holmium: YAG laser provides 10 - 50 nanosecond pulses at 2.09 μ m 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	4	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.

****Custom repetition rates are available upon request.

*****Flat-top output beam mode is available upon request.

***Output energies >50 mJ are 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			MAX, ANSALG OUTPUT POWER: 80 W MAX, PEAK OUTPUT POWER: 5 MW PULSE DURATION: 0.5 PO PULSE DURATION: 0.5 PO MAXE EPERTITION POWER 2000 TO DURATE WHEN AND OR INVISION LASER ADAMTON MAXED OF DURATE ASSERTANCE WHEN AND OR INVISION LASER ADAMTON DURATE ASSERTANCE TO DURATE ASSERTANCE POWER CADES 1-3007, 21 CPL 106.10 (g)		

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