



# HLPN-10-50-20-R

## Holmium Nanosecond Hybrid Fiber Laser

NEW PRODUCT



### Applications

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



### Features

- ▶ Wavelength: 2.09  $\mu\text{m}$
- ▶ TEM<sub>00</sub> Beam Mode
- ▶ Output Power up to 20 W
- ▶ Linear Polarization
- ▶ Pulse Energy up to 10 mJ
- ▶ Repetition Rate 1-5 kHz
- ▶ Pulse Duration 30-100 ns

IPG Photonics' HLPN Holmium:YAG laser provides 30-100 nanosecond pulses at 2.09  $\mu\text{m}$  with pulse energies up to 10 mJ and output powers up to 20 W. The acousto-optically Q-switched Ho:YAG head is pumped by IPG's efficient and reliable thulium fiber laser. The HLPN 2.09  $\mu\text{m}$  laser addresses non-metal materials processing, scientific and medical applications.

# HLPN-10-50-20-R

## Holmium Nanosecond Hybrid Fiber Laser

### Optical Characteristics

Mode of Operation	Acousto-optically Q-switched
Wavelength, nm	2090
Max. Average Power, W	20
Peak Power, kW	<300
Max. Pulse Energy, mJ	10 @ 1 kHz, 6 @ 3 kHz, 4 @ 5 kHz
Pulse Duration, ns	30-100
Repetition Rate, kHz	1-5
Polarization	Linear, >100:1
Output Beam Mode, M <sup>2</sup>	1.3

### General Characteristics

Pump Laser	IPG Photonics CW Thulium Fiber Laser
Pump Wavelength, nm	1908
Control Unit Dimensions (W × D × H), mm	448 × 702 × 176
Optical Head Dimensions (W × D × H), mm	240 × 65 × 70
Cooling	Water-cooled
Optical Head Cooling	Passively Air-cooled
Supply Voltage, 50-60 Hz, VAC	110-220
Power Consumption, kW	<1.0

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MAX. AVERAGE OUTPUT POWER: 40 W  
 MAX. PEAK OUTPUT POWER: 600 kW  
 PULSE DURATION: 30-100 ns  
 PULSE REPETITION RATE: 1-5 kHz  
 WAVELENGTH RANGE: 2000-2200 nm

**DANGER - INVISIBLE LASER  
 RADIATION AVOID EYE OR SKIN  
 EXPOSURE TO DIRECT OR  
 SCATTERED RADIATION  
 CLASS 4 LASER PRODUCT**  
 IEC 60825-1:2014