

ELPN-1645 Series

Er:YAG Nanosecond Pulsed Lasers

PRELIMINARY



Applications

- ▶ Plastics Processing
- ▶ LIDAR/Remote Sensing
- ▶ Medical Applications
- ▶ OPO Pump Source



Features

- ▶ Output Power up to 15 W
- ▶ Pulse Energy 1- 15 mJ
- ▶ Repetition Rate 0.3 - 1 kHz
- ▶ Variable Pulse Width 15 ns
- ▶ TEM₀₀ Beam Mode
- ▶ Flat-top Beam Option
- ▶ Power Amplification Option
- ▶ Single-frequency Option

IPG Photonics' ELPN Erbium:YAG nanosecond pulsed laser provides 15 ns pulses at 1.645 μm with pulse energies up to 15 mJ and output powers up to 15 W. The acousto-optically q-switched Er:YAG head is pumped by IPG's efficient and reliable erbium fiber laser. The Er:YAG-1645 pulsed laser addresses non-metal materials processing, scientific and medical applications. A single-frequency option, higher average powers and pulse energies, flat-top beam and other options are available upon request. Please contact your IPG Representative with your requirements.

ELPN-1645 Series

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Optical Characteristics

Mode of Operation	Acousto-optically Q-switched
Wavelength, nm	1645
Linewidth FWHM*, nm	< 1
Maximum Average Power, W	15
Peak Power, MW	1
Pulse Energy**, mJ	15
Pulse Duration, ns	15
Repetition Rate***, kHz	0.3 - 1
Polarization	Linear, >100:1
Output Beam Mode****, M ²	≤ 1.2
Beam Diameter (FW, 1/e ²), mm	1.5

Warm up Time, min

5 from standby, 15 from cold start

*Single-frequency option is available upon request.

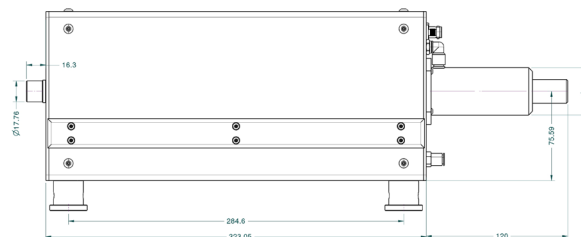
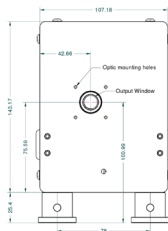
***Custom repetition rates are available upon request.

**Output energies >15 mJ are available upon request.

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

General Characteristics

Pump Laser Dimensions (WxDxH), mm	448 x 403 x 132
Optical Head Dimensions (WxDxH), mm	107 x 323 x 143
Pump Laser Cooling	Air-cooled
Optical Head Cooling	Water-cooled
Supply Voltage 50-60 Hz, VAC	110 - 240
Power Consumption, W	800

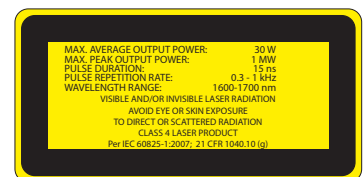


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