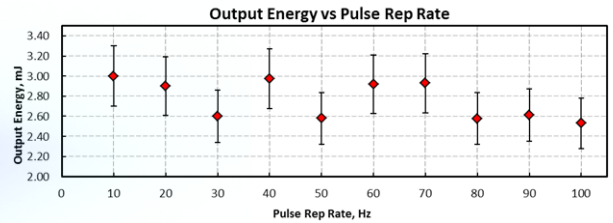


ELPN-1645-SF Series

Er:YAG Single-frequency Nanosecond Pulsed Lasers

NEW PRODUCT



Typical Output Energy vs Pulse Repetition Rate of Single-frequency ELPN-1645-SF Series Laser

Applications

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

Features

- ▶ Output Power up to 15 W
- ▶ TEM₀₀ Beam Mode
- ▶ Pulse Energy 1- 3 mJ
- ▶ Flat-top Beam Option
- ▶ Repetition Rate 0.01 - 10 kHz
- ▶ Power Amplification Option
- ▶ Variable Pulse Width
- ▶ Single-frequency Option

IPG Photonics' ELPN-SF Erbium:YAG single-frequency nanosecond pulsed laser provides 10-40 ns pulses at 1.645 μm with pulse energies up to 3 mJ and output powers up to 10 W. The acousto-optically q-switched Er:YAG head is pumped by IPG's efficient and reliable erbium fiber laser. The Er:YAG-1645-SF pulsed laser addresses lidar remote sensing, range-finding, non-metal materials processing, scientific and medical applications. Higher average powers, higher pulse energies, flat-top beam and other options are available upon request. Please contact your IPG Representative with your requirements.

ELPN-1645-SF Series

Er:YAG Single-frequency Nanosecond Pulsed Lasers

Optical Characteristics

Mode of Operation	Acousto-optically Q-switched
Wavelength, nm	Tunable over 1645-1646
Linewidth FWHM, nm	<1 GHz
Max. Average Power, W	10
Peak Power, MW	100
Max. Pulse Energy ¹ , mJ	3
Pulse Duration, ns	5-50
Repetition Rate ² , kHz	0.01-10
Polarization	Linear, >100:1
Output Beam Mode ³ , M ²	≤1.2
Beam Diameter (FW, 1/e ²), mm	1.5
Warm up Time, min	5 from Standby, 15 from Cold Start

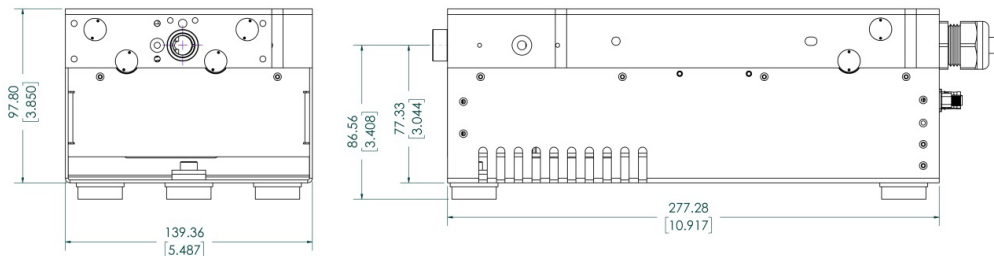
¹Output energies >3 mJ are available upon request

²Custom repetition rates are available upon request

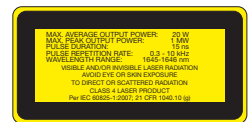
³Flat-top output beam mode is available upon request

General Characteristics

Pump Laser Dimensions (WxDxH), mm	448 x 403 x 132
Optical Head Dimensions (WxDxH), mm	140 x 277 x 97
Pump Laser Cooling	Air-cooled
Optical Head Cooling	Water-cooled
Supply Voltage 50-60 Hz, VAC	110-240
Power Consumption, W	100-800



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