



Centurion 100Hz DPSS Laser



Centurion 100 Hz with SHG/ THG module and power supply

Features

- Compact rugged design
- Full 5V 50 Ω triggers & syncs
- RS232/422 Control Communications
- 2U 19" rack-mounted power supply
- Cooled via forced air or water jacket or cold plate
- 3m standard umbilical length with longer available upon request
- Multimode or Gaussian resonator

The Centurion is a diode-pumped, Q-Switched pulsed Nd:YAG laser. Producing up to 40mJ at 1064nm, 100Hz in 8nsec pulses, the Centurion was designed as a rugged industrial laser for a variety of applications in the factory or in the laboratory. All the harmonics are available.

The laser is thermoelectrically cooled. Heat can be removed via a fan and a heatsink, or by attaching the laser to a cold plate. The laser comprises a compact head that contains most of the electronics, and a 2U 19" rack that contains the main power supply and microprocessor.

Specifications					
Wavelength (nm)	1064nm	532nm	355nm	266nm	1.57µm
Resonator	Multimode	Multimode	Multimode	Multimode	Multimode
Output Energy (mJ)	40	20	6	3	5
Nominal Pulse Duration (nsec)	8	7	6.5	6	10
Pulse-to-Pulse energy Stability (%)[†]	≤ 0.5	≤ 1.0	≤ 2.0	≤ 2.0	≤ 4.0
Nominal Beam Diameter (mm)	2.6	2.2	1.5	1.4	3.5
Divergence (mrad)	≤ 7	≤ 5.5	≤ 4	≤ 3	≤ 10
Frequency (Hz)	0 – 100				
Polarization	Linear				
Dimensions (cm) WxDxL	12.7x7.6x22.9 w/o heatsink or fan	Add L = 9.1			
Estimated Diode Lifetime	>10 ⁹ shots				
Operating Temperature (°C)	5 - 30				
Laser Head Weight (kg)	~ 5				
Required Cooling Capacity	≤ 200W ^{††} , Forced air or Water/Air				
Voltage, Power Consumption	90 – 264VAC, 50/60Hz, <300W				

[†]Energy stability is defined as the standard deviation (%) after 30 seconds

^{††}Nominal value is 150W for 40mJ IR or 110W for 20mJ IR (stable configuration with cooling fans). Approximately 10 minute operation without active cooling is possible.



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