

Centurion

Diode pumped Q-switched Nd:YAG laser



- Air cooled – no water required

- High peak powers
– < 8 ns pulsewidths

- Long diode life time
– over 1 billion shots

- Low maintenance
– no lamps or filters to change

- Nitrosealed – built to withstand harsh environments

- Compact – small size integrates easily

- Easy to use
– graphical user interface

- Highly reliable – guaranteed to arrive and stay aligned

Dimensions

All dimensions H x L x W
are in mm [inches]

Weight

All weights
are in kg [lbs]

Optical laser head (1064 nm):

Head only:	70 x 216 x 128 [2.75 x 8.5 x 5]	3.2 [7]
Head with air cooling unit:	134 x 267 x 128 [5.28 x 10.5 x 5]	4.2 [9.24]
Air cooling unit:	65 x 268 x 69 [2.53 x 10.54 x 2.7]	1 [2.2]
Electronics:	483 x 457 x 89 [19 x 18 x 3.5]	13.2 [29]

Harmonic generation modules and options:

Harmonic generators (2 ω , 2 $\omega/3$ ω , 2 $\omega/4$ ω):	51 x 91 x 76 [1.95 x 3.6 x 3]	0.5 [1.1]
Wavelength separation package:	51 x 45 x 76 [1.95 x 1.8 x 3]	0.2 [0.45]
Variable attenuator (1064 nm only):	51 x 100 x 76 [1.95 x 4 x 3]	0.6 [1.3]
OPO module:	51 x 95 x 76 [1.95 x 3.8 x 3]	3.6 [1.3]

CENTURION
BIG SKY LASER SERIES.



Tough, Rugged, Reliable. Simply easy to use.

RESONATOR	Stable	GRM
REPETITION RATE (Hz)	1-100	1-100
ENERGY PER PULSE (mJ)		
1064 nm	40	25
532 nm	18	
355 nm	6	
266 nm	2	
1.57 μm	5	
ENERGY STABILITY (% RMS)		
1064 nm	≤ 0.5	≤ 0.5
532 nm	≤ 1.0	
355 nm	≤ 2.0	
266 nm	≤ 4.0	
1.57 μm	≤ 4.0	
ENERGY DRIFT OVER 8 HOURS (%)¹	< 10	
PULSE DURATION (ns)²		
1064 nm	8	7
532 nm	7	
355 nm	7	
266 nm	6	
1.57 μm	10	
JITTER (ns)³	+/- 1	
BEAM DIVERGENCE (mrad)⁴		
1064 nm	≤ 7	≤ 1.5
532 nm	≤ 5.5	
355 nm	≤ 4	
266 nm	≤ 4	
1.57 μm	≤ 10	

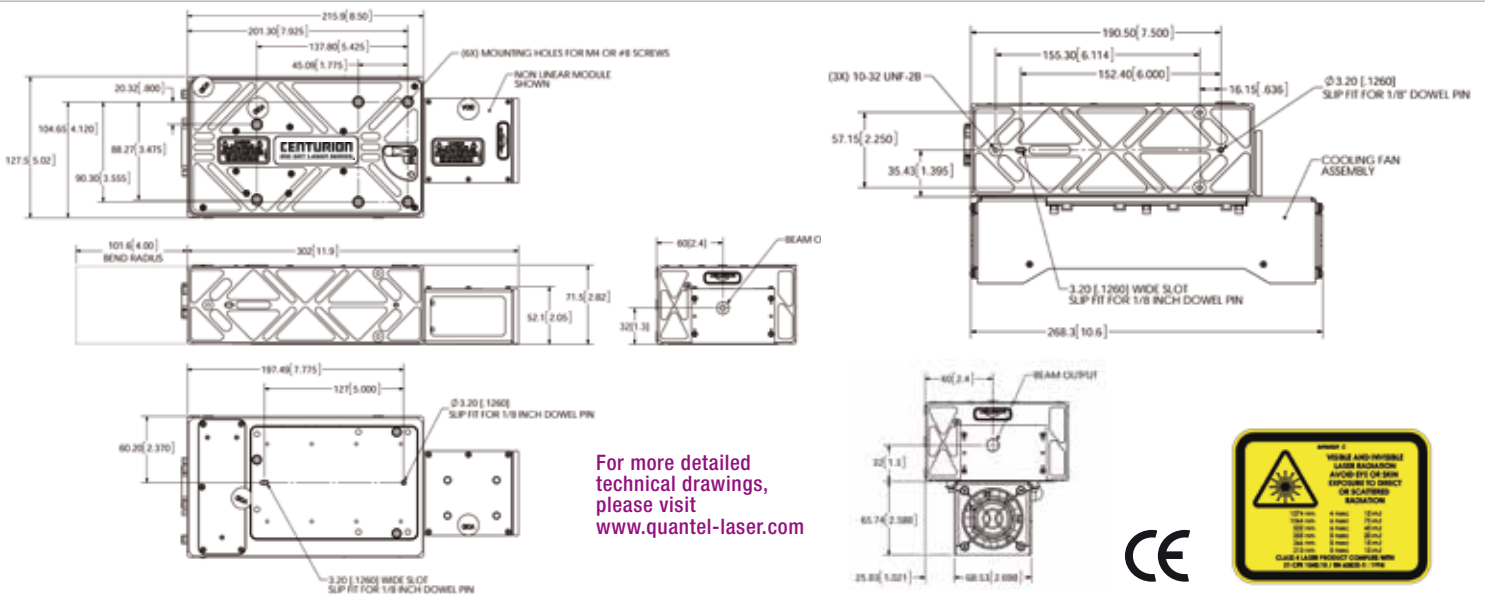
RESONATOR	Stable	GRM
POLARIZATION⁵		
1064 nm	Horizontal	
532 nm	Vertical	
355 nm	Vertical	
266 nm	Vertical	
1.57 μm	Horizontal	
BEAM DIAMETER (mm)		
1064 nm	2.6	2.7
532 nm	2.2	
355 nm	1.6	
266 nm	1.4	
1.57 μm	3.5	
SPECTRAL PURITY (%)		
532 nm	> 97	
355 nm	> 90	
266 nm	> 85	
OPERATIONAL TEMPERATURE RANGE	10°C - 35°C	
STORAGE TEMPERATURE RANGE	-40°C - 70°C	
MAX. ALTITUDE	3000 m [10000 feet]	
DIODE LIFETIME	> 1 billion shots	
SERVICE REQUIREMENT	100 – 240 V 10 A 50 – 60 Hz Single phase	
CABLE LENGTH	3 m [9.84 feet]	

All specifications are at 100 Hz

¹ Specifications applying to all 1064 nm laser head systems ² Nominal FWHM, +/- 2 ns ³ Measured from Q-switch Sync Output ⁴ Angle containing 86.5% energy. Other Methods can predict lower values for GRM systems
⁵ With respect to the thermal interface plate.

OPTIONS

Wavelength separation package: dual dichroic is standard.
 Motorized variable attenuator (manual upon request).



Quantel - France
 2 bis, avenue du Pacifique
 Z.A. de Courtaboeuf - BP 23
 91941 Les Ulis Cedex - France
 Tel. +33 (0)1 69 29 17 00

Quantel - USA
 601 Haggerty Lane
 Bozeman, MT 59715 - 2001 - USA
 Tel. +1 406 586 0131 / 1 877 QUANTEL

Quantel - Germany
 Am Wolfsmantel 46
 91058 Erlangen - Germany
 Tel. +49 (0) 9131 94088-15

E-mail : quantel@quantel.fr

www.quantel-laser.com

