

GQA/BxJ laser line

The GQA/B-xJ Series of Repetitive Pulsed Nd:YAG Laser

The GQA/B-xJ lasers are based on a Nd:YAG oscillator and Nd:YAG amplifiers. The lasers produce near-diffraction limited single-longitudinal mode radiation in the nanosecond regime from 0.2 to 2 Joules per pulse (fundamental harmonic) and from 0.1J to 1.2J (second harmonic). Design features include a highly stable electro-optically or passively Q-switched ring-cavity oscillator, 4-pass SBS phase conjugated amplifiers using beam apodization and optional frequency conversion to the second or third harmonics. The GQA range of lasers have quasi-gaussian beam distribution. The higher energy GQB lasers have top-hat distributions.

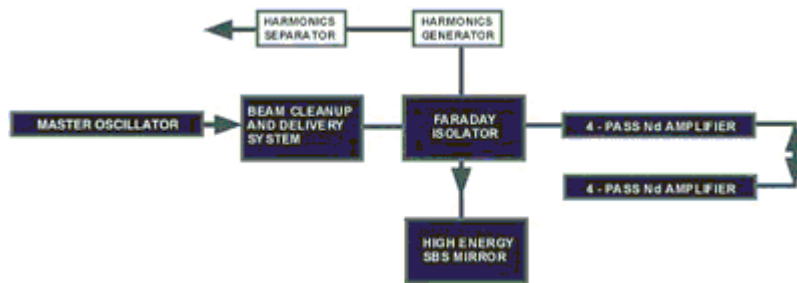


Options

- E --- Built-in digital energy meter;
- C --- Control of all functions from a PC;

System Features

- LCD Pulse Counters
- Low Energy Pilot Mode for Alignment
- Programming of Amplifier and Oscillator Voltages
- Shutter-based repetition rate selector for 1 - 20 Hz operation
- CE compliant



Optical Scheme for all GQA/B-xJ laser systems.

Note that the second amplifier is only used for models GQA-11J and GQB-15J.

Technical Parameters of the most popular models

Model	GQA-05J	GQB-07J	GQA-07J	GQA-1J
Output Wavelength:	1064nm; 532nm; 355nm			
Max Output Energy:	1J; 0.5J; 0.25J	1.5J; 0.75J; 0.35J	1.5J; 0.75J; 0.35J	2J; 1J; 0.5J
Pulse Duration:	~25 ns			
Beam Diameter (1/e ²):	<10 mm	<11 mm	<12 mm	<13 mm
Beam Divergence:	Near Diffraction Limit			
Coherence Length:	>3 m			
Max Repetition Rate:	5 and 10 Hz		5 Hz	
Spatial profile:	Super-Gaussian	Top-Hat	Super-Gaussian	Top-Hat
Laser Head Size:	1300 x 550 x 250 mm	1300 x 550 x 250 mm	1500 x 650 x 250 mm	1500 x 650 x 250 mm
Laser Head Weight:	<65 Kg	<65 Kg	<75 Kg	<75 Kg
Flash Tube Lifetime				

(a) Oscillator:	5 x 10 ⁷ shots	5 x 10 ⁷ shots	5 x 10 ⁷ shots	5 x 10 ⁷ shots
(b) Amplifier 1:	5 x 10 ⁷ shots	5 x 10 ⁷ shots	5 x 10 ⁷ shots	5 x 10 ⁷ shots
(c) Amplifier 2:	N/A	N/A	5 x 10 ⁷ shots	5 x 10 ⁷ shots
Advised Operating Temperature:	20 °C	20 °C	20 °C	20 °C
Advised Operating Humidity:	<60% non-condensing	<60% non-condensing	<60% non-condensing	<60% non-condensing
Warranty Period:	12 months	12 months	12 months	12 months
Geola reserves the right to change specifications without notice				