

COMPACT AIR-COOLED kHz DPSS LASERS

JX300 series

Diode-pumped lasers of the JX300 series have a number of unique design features ensuring their failure-free and stable operation in a wide range of environmental conditions. Unpretentiousness to operating conditions and excellent beam quality will satisfy both scientists performing fine scientific experiments and industrial sector users.



TEM₀₀ beam and excellent long-term stability are ensured by the original optical scheme and built-in power meter with the feed-back system. It allows the JX300 series lasers to perform both fine material processing operations and high accuracy scientific measurements.

The JX300 series lasers ideally suit for integration into any specialised equipment. This feature is conditioned by small footprint and completely “dry” laser head design based on the Peltier cooling technology.

24/7 operating mode with prolonged service intervals is ensured both by high reliability of the cavity optics and the mechanically rugged dustproof laser head design. Intracavity harmonics generation reduces the radiation density inside non-linear crystals which makes their operation infinitely long.

The specified laser parameters are provided at reduced pump diodes current prolonging their lifetime. As a result, the JX300 series lasers demonstrate long-term and failure-free operation in the toughest operating conditions.

Routine service even in the workshop facilities is possible now due to the pump scheme which integrates the laser diode into the power supply. Besides, almost all optical components and consumables can be replaced by trained staff at the Customer’s site avoiding costly shipments and equipment downtime.

Laser heads and power supplies are interchangeable which also considerably simplifies service and reduces its cost.

FEATURES

- IR, VIS or UV output
- TEM₀₀, $M^2 \leq 1.2$
- OEM/industrial design for 24/7 operation
- Air cooled
- Turn-key operation
- Built-in power meters
- Field-replaceable diodes/fibers
- Interchangeable laser head and power supply
- Full RS232 & Ethernet Interface

APPLICATIONS

- Repair of PCB and LCD
- Micromachining of semiconductors and solar cell
- Micromachining and marking of metal, glass and plastics
- Nonlinear spectroscopy
- Nonlinear optics
- Remote sensing

SPECIFICATIONS *

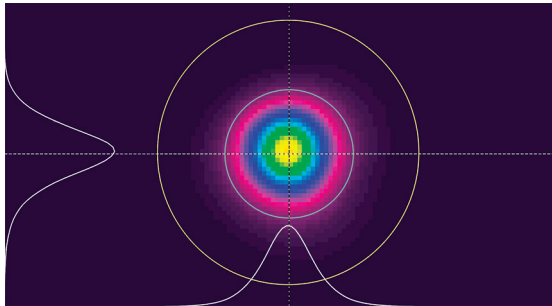
Model	JX310	JX320	JX330
Wavelength, nm	1064	532	355
Average power ¹⁾ , W	10	7	3
Pulse repetition rate, kHz	1-100	1-100	1-100
Pulsewidth ¹⁾ , ns	6	25	16
Beam diameter, mm	0.8	0.7	0.5
Power stability (StdDev), %	< 2.5	< 2.5	< 2.5
Divergence, mrad	< 2.5	< 2	< 2
Beam quality	TEM ₀₀ , M ² <1.2		
Cooling	Air		
Electrical service	100...240V, 50/60 Hz, ≤ 500W		
Dimensions, mm:			
Laser Head (LxWxH)	290 x 155 x 105		
Power Supply (HxWxD)	460 x 330 x 135		

* Specifications are subject to change without notice.

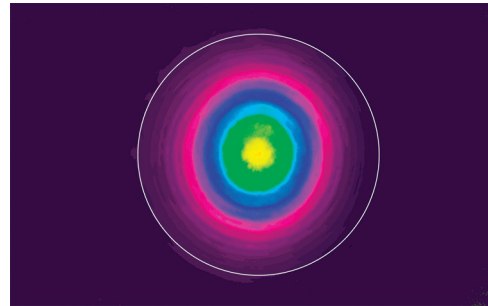
¹⁾ Specified at 30 kHz.

OPTIONS

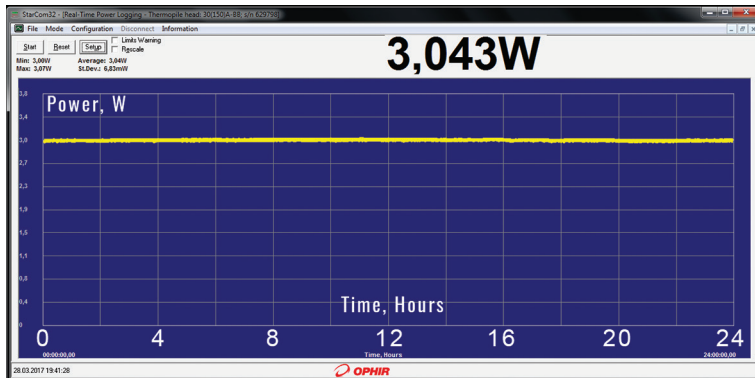
- Specified at 30 kHz
- Specified at 1064 nm
- Laser with 10ns pulsewidth can be supplied upon request



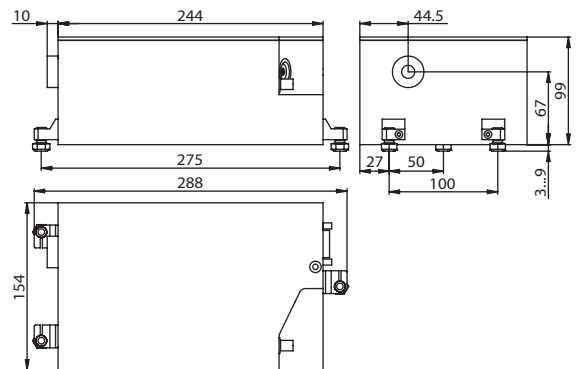
The JX330 laser typical far-field beam profile.



The JX330 laser typical near-field beam profile.



The JX330 laser typical output power stability chart.
Measurement duration: 24 hours. Mean 3.04 W / St.Dev. 6.83 mW.



The JX330 laser head outline drawing.