

Single Longitudinal Mode DPSS Laser



Brighter1064H lasers are ultra compact, continuous wave, diode-pumped all-solid-state of 1064nm laser. Single-longitudinal mode operation provides a narrow spectral bandwidth, low noise and long coherence length. The laser is designed and manufactured to ensure a high level of reliability.

The Brighter1064H lasers are intended for stand-alone use in laboratory environment or for integration as OEM component in equipment for many applications. Available output power is upto 10W.

Unique Features

- Single-longitudinal Mode
- Low Noise: <0.25%
- High Reliability: < $\pm 1\%$
- Spectral Bandwidth: <150 KHz
- Beam Quality: $M^2 < 1.2$
- Long Lifetime

Applications

- Raman Spectroscopy
- Biotechnology
- Holography
- Confocal Microscope
- DNA Sequencing
- Flow Cytometry
- Cell Sorting
- Interference
- Photoluminescence
- Micro-material Processing
- Bio-instrument
- Precision Measurement
- Physics Experiments

Specifications

Wavelength	1064 nm
Operating Mode	CW
Output Power	10 W
Spatial Mode	TEM ₀₀
Longitudinal Mode	Single
Mode Quality M^2	<1.2 $\pm 5\%$
Spectral Linewidth	<150 KHz
Coherent Length	> 100 m
Beam Diameter @ $1/e^2$	1.9 $\pm 2\%$
Beam Divergence (full angle)	0.8 mrad $\pm 5\%$
Circularity of Beam	> 95%
Pointing Stability (rms, over 3 hours and 25 ± 2 °C)	< 10 μ rad
Noise (0 Hz to 20 MHz)	< 0.25% rms
Power Stability (rms, over 3 hours)	< $\pm 1\%$
Polarization Ratio	> 100:1
Frequency Drift	< 10Mhz/minuter
Warm-up Time	< 10 minutes
Expected Lifetime	>10,000 Hours



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Utility and Environmental Requirements

Operating Voltage	220VAC/50Hz or 110VAC/60Hz
Power Consumption	< 600 W
Maximum Laser Head Baseplate Temp.	35°C
Ambient Temperature Operating Range	20°C ~ 30°C (Optimum 25-28°C)
Storage Temperature	-20°C ~ +70°C
Dimensions (LxWxH) of Laser Head	300 x 200 x 200 mm
Dimensions (LxWxH) of Power Supply	400 x 300 x 90 mm
Weight of Laser Head	20 Kg
Weight of Power Supply	15 Kg

Order Information

Part No.	Output Power
Brighter1064H-10	10 W

Warranty

ATOP offers a limited warranty for all laser systems. ATOP diode-pumped solid state lasers are warranted to be free of defects in materials and workmanship for 12 months from the date of shipment. For full details of this warranty coverage of further products information, please refer to the Service and Support section at www.atoplaser.com, or contact your local Sales or Service representative.

Laser safety and electrical safety

Caution! Visible and invisible laser radiation is extremely dangerous. Avoid eye or skin exposure to direct radiation or diffuse reflection. Most ATOP laser systems fall into class III or class IV laser classification. Most laser systems utilize different level AC and DC voltage in both laser head and power supply. All ATOP products are designed in a compact package.

Notices

1. Due to our continuous product improvement program, specifications may change without notice.
2. Specifications apply to operation at the wavelength noted.
3. All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application, ATOP reserves the right to change at any time of a product offered for sale herein. ATOP makes no representations that the products herein are free from any intellectual property claims of others. Please contact ATOP for more information.