

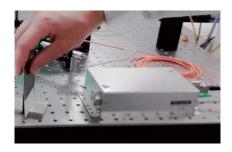




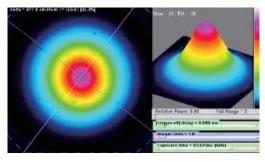
ALS 351 CW Fiber Lasers 30 mW

All-fiber based MOPA Technology

Third Harmonic generation of single frequency
Ultra low noise and high power stability
IR fiber laser beam (1053nm)



Frequency stability of the ALS-Bl laser in MHz over time (frequency in blue, room T°C in red). Industrial holography customers validated our solution as the only one on the market to be able to replace and improve their performances made with Argon lasers regarding the central frequency stability and the pointing stability.



ALS lasers are based on only single mode fibers architecture and so offer an ultra-stable high quality single spatial mode.

Typical value: M2 < 1.2

Control - measurement
Argon Gas Laser replacement
Photoluminescence / Raman
Bio photonic
Flow Cytometry
Digital Holography

key features:

TEMoo mode

Long coherence length

 $M^2 < 1.2$

Single frequency

Low noise

Excellent pointing stability

Stable output power

High polarization ratio and stability

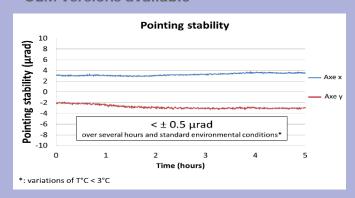
Coolerless laser head

Compact design

Maintenance free - long life

Low power consumption

OEM versions available



The graph below shows the stability of pointing of a standard ALS-BL-355 lasers. Customers from industry validated our solution as the only one on the market to be able to replace and improve their performances performed with Argon lasers regarding the central frequency stability and the pointing stability.

	355nm Fiber Lasers with internal seeder	Unit
Wavelengths ⁽¹⁾	351 ± 0,5	nm
Output power	30	mW
Output power Tunability	10 to 100	%
Beam quality	$M^2 < 1.2$	-
Beam diameter « free space »	< 0,7	mm
Beam divergence ½ Ang.	< 0,6	mrad (FW@1/e^2)
Spatial mode	TEM ₀₀	-
Spectral width - single frequency ⁽²⁾	< 10	MHz
Power stability	$< \pm 0.5$ (short term) $< \pm 1$ (over 8 hours)	% %
Noise [100Hz - 10MHz]: - single frequency	< 0.3	% rms
Frequency stability ⁽³⁾	< 0.1	pm
Output polarization	Linear > 100:1	-
Pointing stability	< ± 20	μrad/°C
Output	Free space laser head	-
Laser control	Multi-turn potentiometer, Touch screen, Analog voltage	-
Supply requirements	90-240V/50-60Hz	-
Electrical power consumption	150<<300	W
Cooling	Air cooled	-

- (1): Other wavelengths available on request.
- (2): With standard internal laser seed
- (3): For single frequency version only. Measured over 8 hours and temperature variation < 3 $^{\circ}$ C.

Dimensions	
Laser Rack	480 x 460 x 130mm
Laser Head	170 x 120 x 50mm



About 1,35 meters cable length between rack and the beam output from the laser head. Coolerless laser head, THG temp controller, 19" 3U air cooled power unit



Customized optical beam output on demand

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