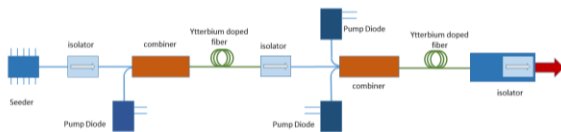


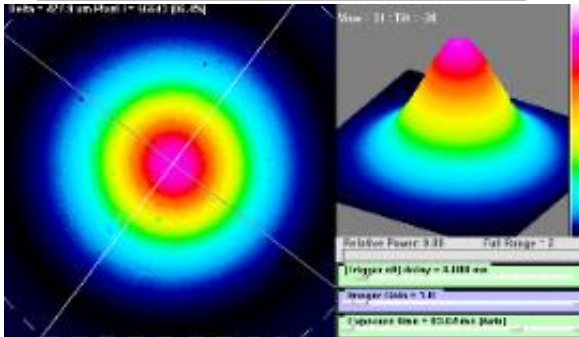
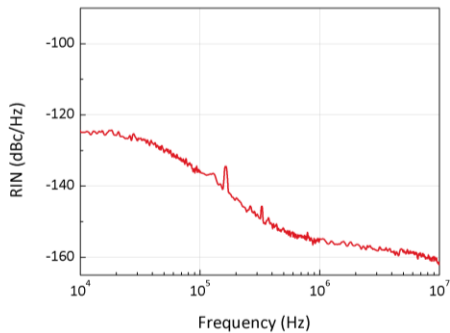
1064nm 130 W CW Fiber Laser

PRELIMINARY DATASHEET

All-fiber based MOPA Technology



Below is a typical RIN data of an ALS IR fiber laser with internal laser seed <50kHz (typical 25 kHz). This spectrum is representative of the RIN level of the entire ALS IR range of lasers set up in constant power mode.



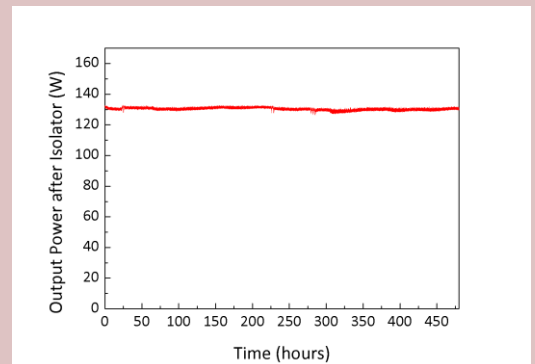
Azurlight Systems lasers are based on only single mode fibers architecture and so offer an ultra-stable high quality single spatial mode. Typical value: $M^2 < 1.2$ (typ. 1.1)

- High power Laser pumping
- Nonlinear frequency conversion
- Control - measurement
- Quantum Physics
- Atom trapping
- Atom cooling
- Bose-Einstein Condensate
- Optical Tweezers

key features :

- TEM₀₀ mode
- Long coherence length
- $M^2 < 1.2$
- Single frequency
- Ultra-low noise
- Excellent pointing stability
- Ultra stable power output
- High polarization ratio and stability
- Compact design
- Low power consumption
- Maintenance free - long life
- RoHS Compliant
- OEM versions available

The graph below shows the power stability of the 130W fiber laser after 20 min warmup in constant current mode over more than 500 hours.



PRELIMINARY SPECIFICATIONS

1064nm High Power Fiber Laser with internal seeder		Unit
Wavelength ⁽¹⁾	1064± 0,5	nm
Output power	130	W
Output power tunability	35 - 100	%
Beam quality	M ² < 1.2	-
Beam diameter « free space »	2 ± 0.5	mm
Spatial mode	TEM00	-
Spectral width - single frequency ⁽²⁾	< 50	kHz
Power stability (constant power mode)	< ± 0.3 (short term) < ± 0.5 (over 8 hours)	% %
Noise [100Hz - 10MHz]: - single frequency	< 0.05	% rms
Frequency stability ⁽³⁾	< 0.1	pm
Output polarization	Vertically polarized > 300:1	-
Pointing stability	< ± 0.5	μrad/°C
Power control	Multi-turn potentiometer, Touch screen, Analog voltage	-
Supply requirements	90-240V/50-60Hz	-
Electrical power consumption	200<...<400	W
Cooling	Water cooled	-

(1): Other wavelengths available on request.

(2): Typically <30 kHz for single frequency version, linewidth reduction down to 3kHz available as an option with an external seeder rack.

(3): Measured over 8 hours and temperature variation < 3°C.

Options: external ALS seeder (FC/APC) or external tunable (thermal & piezo) seeder (FC/APC)

