NP Photonics

Rock™ High Power Laser Source

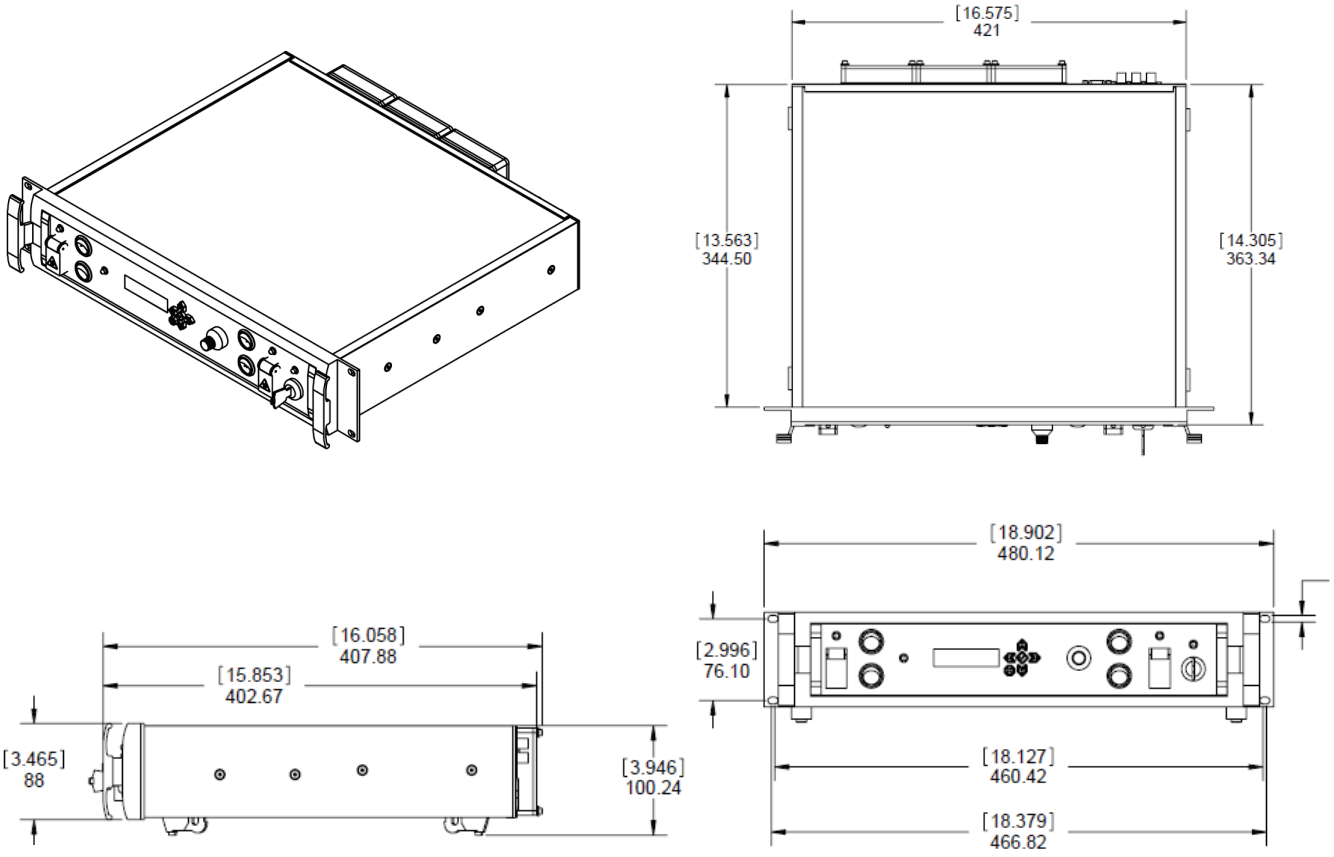
High-Power Single-frequency Fiber Laser

Features

- Power up to 10W
- Narrow Linewidth <700Hz
- Ultra-Low Phase-Noise
- Excellent Frequency Stability
- Broad Mode-Hop-Free Tunability
- Low Sensitivity to Acoustic Noise

Mechanical Outline:

High Power Rock Source



DIMENSIONS ARE IN MILLIMETERS, DIMENSIONS IN [XXX] ARE IN INCHES.

Performance | Reliability | Innovation

Parameter	High Power Rock 1.5 micron		High Power Rock 1 micron
Center Wavelength Range (nm) [1]	1530-1565		1030-1075
Laser Emission		CW - single frequency	
Output Power (W) [2]	0.5, 1, 2, 3, 5		0.5, 1, 2, 5, 10[2]
Line Width (120 µsec [3]) (kHz)	<3kHz (<700Hz-optional)		<5kHz
Beam Quality		$M^2 < 1.05$	
Frequency Stability (MHz) [4]		20MHz	
RIN-Peak Frequency (MHz)		~0.5 - 1	
Optical S/N (dB) (50 pm resolution bandwidth) [5]		>65dB	
PM output		Optional	
Thermal tuning		Standard	
Thermal Tuning Range [6]	>60GHz (480pm)		>66GHz (250pm)
Fast Piezo Tuning Capability [7]		Optional	
Piezo-electric Tuning Range - Internal Driver		+/-200MHz	
Piezo-electric Modulation Frequency [8] (kHz)		up to 40kHz	
Calibrated Power Monitor		Standard	
Signal to ASE Noise (Integrated)		35dB	
Side Mode Suppression Ratio		>50dB	
Operating Temperature (degrees C)		-10 to 30	
Wavelength Set Resolution		50MHz	
Power Stability (% RMS)		+/-1%	
Absolute Wavelength Accuracy		+/-8pm	
Output Termination		Standard Fiber or Armored Cable	
Polarization Extinction Ratio	>23dB		>20dB
RIN Level at peak (dB/Hz)	<-110dB/Hz (<-115dB/Hz-optional)		<-100dB/Hz @ PEAK
Optical Isolation (dB) – typical[9]	>30dB		>25dB
Power Tunability		20%–100% max. output	>25dB

FOOTNOTES

1. Wavelength selectable from range. Other wavelengths available.
2. Different Power Levels may have different packaging.
3. Linewidth based on self--heterodyne measurement with 120µS delay line.
4. Over 1 hour with base temperature constant within 0.2 degrees C after a 30 minute warm--up
5. ~70dB typical
6. Operating with case temperature of 25 degrees C
7. Internal PZT driver included (+/--10V)
8. External trigger required. Up to 14kHz @ 3dB bandwidth for internal driver
9. 1550nm, 0--5W, 25dB min. 1064nm, 0--2W 25dB min; >2W 20dB min.

Ordering Example: RFLXA-5-0-1550.92-1-S-A-1-S, High Power Rock, 5W, No Tunability, 1550.92nm, PM, Seed Beam, Armored Cable & Collimator, Standard

RFLXA----------[ ]----------[ ]----------[ ]----------[ ]----------[ ]

Power	Code
500mW	0.5K
1000mW	1K
2000mW	2K
3000mW	3K
5000mW	5K

Tunability	Code
None	0
Tuning	1
Modulation	2
Tuning & Modulation	3

Wavelength	Code
Standard	15xx.xx
Or ITU Grid	Hxx/Cxx
Generic C-Band	C

Polarization	Code
PM	1

S seed beam	**A*** – Armored cable	**O** No Collimator
N – no seed beam	**S** – Standard Fiber	**1** – 2-3mm collimator
*Armored cable only available with collimator option		

Linewidth	Code
<700Hz	U
Standard	S

NP Photonics

NP Photonics, Inc.
9030 S. Rita Road, Suite 120 - Tucson, AZ 85747 - USA
Phone: 520-799-7400 Fax: 520-799-7403
E--mail: info@npphotonics.com www.npphotonics.com

CE

Reorder No. 6131-HWNHP-19