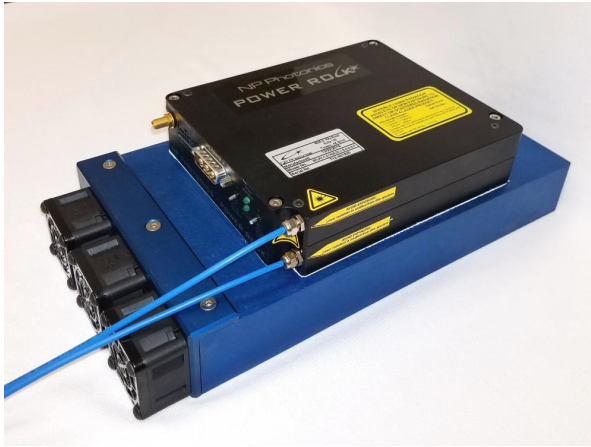


## Power Rock™ High Power Laser Source

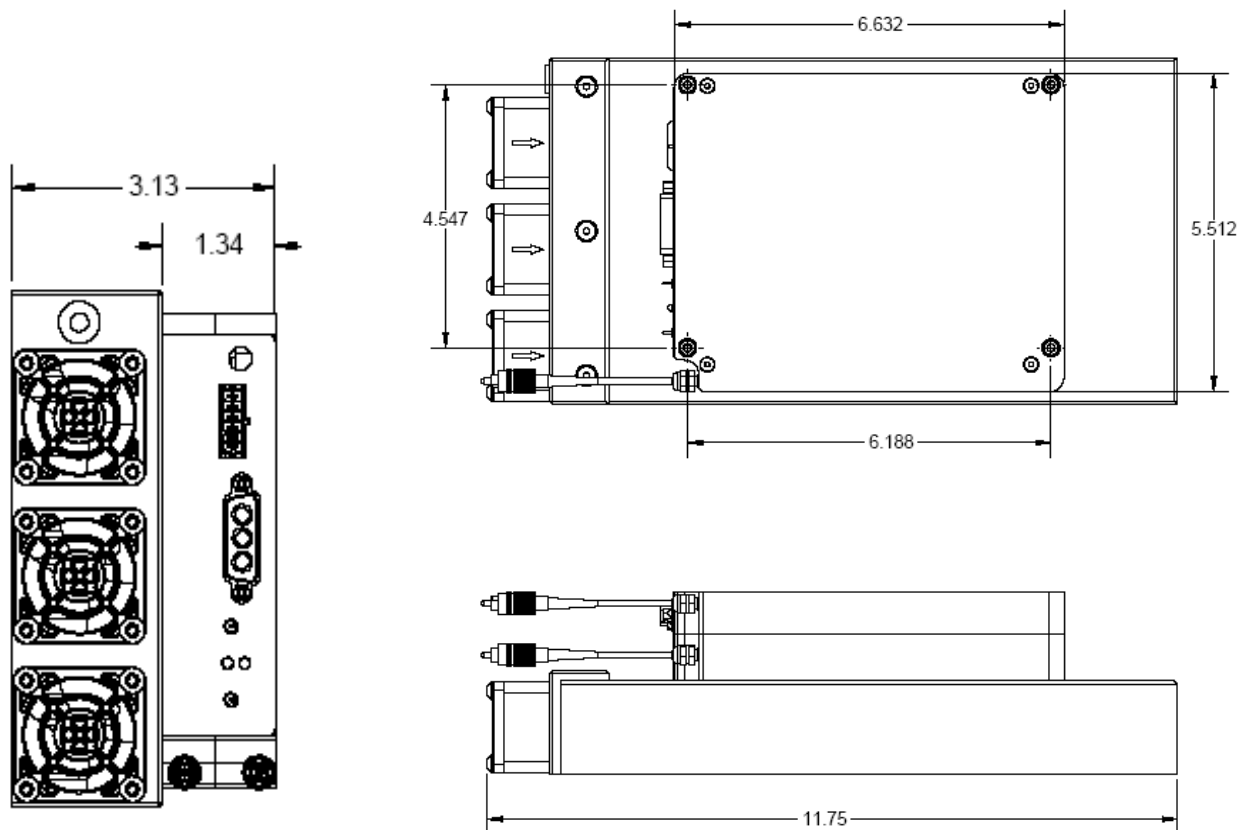
Watts-level, kHz linewidth, Single Frequency Laser for OEM Applications



### Features

- Output Powers 2W and above
- Narrow Linewidth <700Hz
- Ultra-Low Phase-Noise
- Excellent Frequency Stability
- Broad Mode-Hop-Free Tunability
- Low Sensitivity to Acoustic Noise

### Mechanical Outline:



**Performance | Reliability | Innovation**

**Parameter**

**High Power Rock  
1.5 micron**

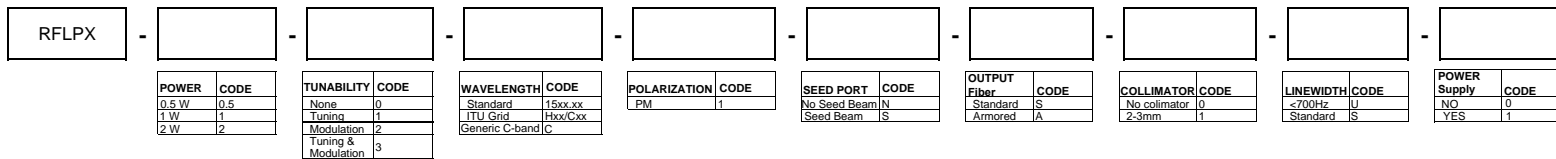
**High Power Rock  
1 micron**

Center Wavelength Range (nm) <sup>1</sup>	1530-1565		1030-1075
Laser Emission		CW - single frequency	
Output Power (W) <sup>2</sup>	0.5, 1, 2		0.5, 1, 2 <sup>2</sup>
Line Width (120 μsec <sup>3</sup> ) (kHz)	<3kHz (<700Hz-optional)		<5kHz
Beam Quality		M <sup>2</sup> < 1.05	
Frequency Stability (MHz) <sup>4</sup>		20MHz	
RIN-Peak Frequency (MHz)		~0.5 - 1	
Optical S/N (dB) (50 pm resolution bandwidth) <sup>5</sup>		>65dB	
PM output		Optional	
Thermal tuning		Standard	
Thermal Tuning Range <sup>6</sup>	>60GHz (480pm)		>66GHz (250pm)
Fast Piezo Tuning Capability <sup>7</sup>		Optional	
Piezo-electric Tuning Range - Internal Driver		+/-200MHz	
Piezo-electric Modulation Frequency <sup>8</sup> (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	>25dB		>25dB
Power Tunability		20%–100% max. output	

**FOOTNOTES**

1. Wavelength selectable from range. Other wavelengths available.
2. Other power levels available.
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

**Ordering Example:** RFLPX-1-3-1550.12-1-S-S-0-S-1, Power Rock Fiber Laser Source, 1W, Tunability & Modulation, 1550.12nm, PM, Seed Beam, Standard Output, Non-collimated, Standard Linewidth, Power supply needed



NP Photonics Rock Laser Modules are protected by a 12 month warranty. All components and assemblies are unconditionally warranted to be free of defects in workmanship and materials for the warranty period, beginning from the date of shipment. This warranty is in lieu of all other warranties, expressed or implied, and does not cover incidental or consequential loss. This warranty does not apply to devices damaged due to operating conditions outside of the specified parameters. Modified warranties for OEM customers are available.



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