



Rock™ High Power Laser Source

High-Power Single-frequency Fiber Laser

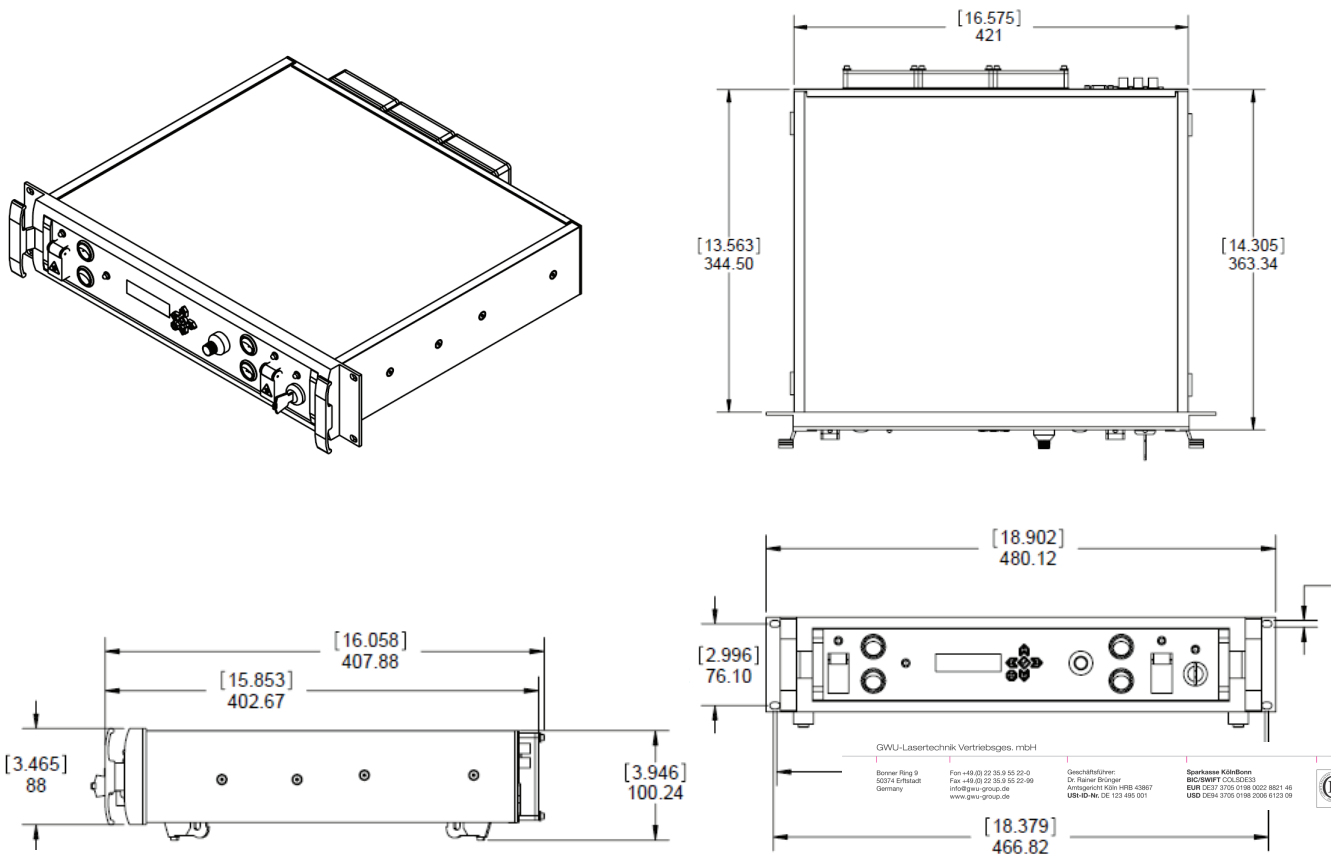


Features

- 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.

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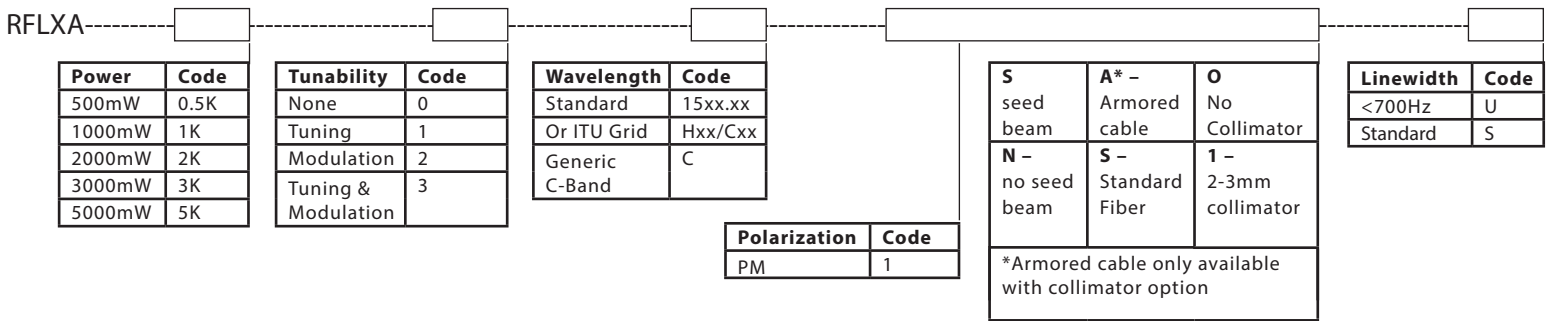


Parameter	High Power Rock 1.5 micron	High Power Rock 1 micron
Center Wavelength Range (nm) ¹	1530-1565	1030-1075
Laser Emission		CW - single frequency
Output Power (W) ²	0.5, 1, 2, 3, 5	0.5, 1, 2, 5, 10 ²
Line Width (120 μsec ³) (kHz)	<3kHz (<700Hz-optional)	<5kHz
Beam Quality		M ² < 1.05
Frequency Stability (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

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



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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