

Mini Laser Series

CNI new mini laser series, features with high power and ultra-compact size. Wavelength covers from 405 nm to 1319 nm which is widely used for industrial, medical, scientific fields. Easy operation with 5 VDC or 12 VDC input are perfect choice for integrating into OEM instrumentation and systems.



● Parameter

Wavelength	Type	Output power (free space)	Output power (after fiber)	Wavelength tolerance±	Spectral linewidth FWHM (typical)	Noise (20Hz-20MHz)
405 nm	Diode	-	1.2 W	5 nm	2 nm	0.5%
442/445/447/450 nm	Diode	-	13 W	5 nm	2 nm	0.5%
460/462/465 nm	Diode	-	8.5 W	5 nm	2 nm	0.5%
473 nm	DPSS	1 W	800 mW	1 nm	0.2 nm	N/A
532 nm	DPSS	5.5 W	5 W	1 nm	0.2 nm	1%
561 nm	DPSS	1 W	800 mW	1 nm	0.2 nm	N/A
589 nm	DPSS	800 mW	600 mW	1 nm	0.2 nm	N/A
593 nm	DPSS	300 mW	200 mW	1 nm	0.2 nm	N/A
635/637/640/642 nm	Diode	-	2 W	5 nm	2 nm	0.5%
671 nm	DPSS	2.5 W	2 W	1 nm	0.2 nm	N/A
1319 nm	DPSS	1 W	800 mW	1 nm	0.3 nm	N/A

● Features

- Ultra-compact
- Plug & play
- Cost-effective
- Many wavelengths available
- Easy integration
- Can be equipped with software

● Applications

- Confocal microscopy
- Laser medical treatment
- Scientific research
- Cell sorting
- Optical instrument
- OEM integration



● **Beam properties (for DPSS):**

- Transversal mode: Near TEM₀₀
- Beam diameter at aperture (1/e²): ~3 mm
- Beam divergence (full angle): <1 mrad
- Polarization ratio: better than 100:1

● **Power stability:**

- Power stability of free-space lasers <1% RMS over 8 hrs
- Power stability of fiber-coupled lasers <1% RMS over 8 hrs

● **Modulation:**

- All diode lasers can be modulated up to more than 100kHz via TTL pin
- All DPSS lasers can be modulated at 0~30kHz TTL pin

● **Fiber specs:**

- All lasers are made with FC or SMA905 connectors
- Standard length of a fiber is 1 m or 2 m, other lengths available on request

● **Physical properties:**

- Control interface type: RS232 or USB
- External power supply requirement: +5VDC, 12A for DPSS, +12VDC, 3A for diode
- Dimensions (L-W-H): 87 (L) × 50 (W) × 19 (H) (excluding pins and output window)
- Beam height from the base: 12mm
- Optimum heatsink temperature (non-condensing): +15... +30°C
- Max. heatsink temperature stabilization: TEC
- Overheat protection: Yes
- Storage temperature (non-condensing): -10 to +50°C
- Warranty: 12 months

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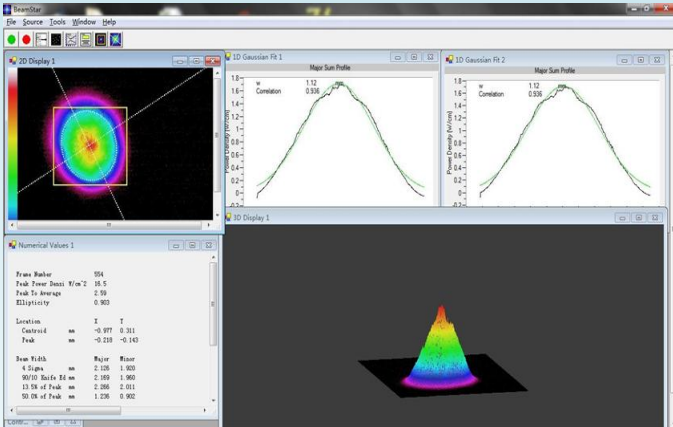
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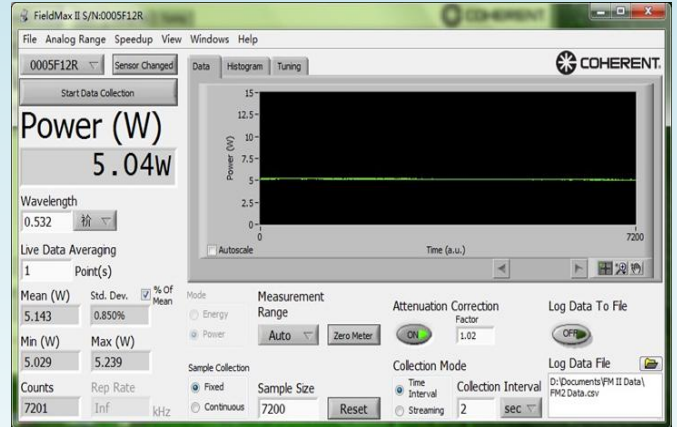
中科院长春光机所 长春新产业光电技术有限公司

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● **Measurements:**

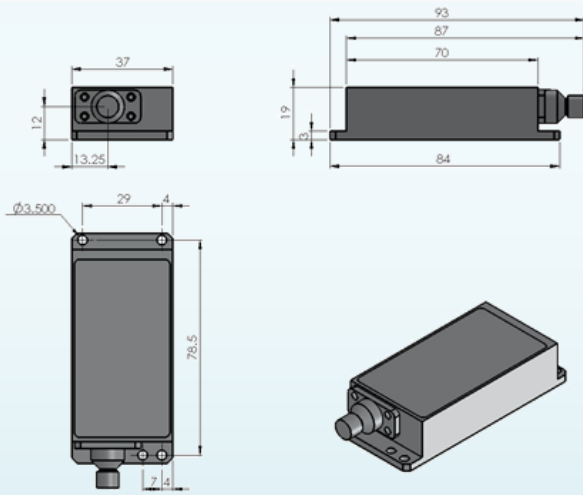


Beam profile (TEM₀₀)



Power stability <1% of 532 nm 5W fiber coupled laser

● **Dimensions of DPSS laser:**



93(L) × 37(W) × 19(H)

Complete Solution for Laser Technology!

Founded in 1996, CNI (CHANGCHUN NEW INDUSTRIES), is the leading supplier of lasers, spectrometers, power meters and optical systems in China. CNI products are ISO-9001, CE, RoHS certified. CNI offers a diverse of products for a broad range of commercial and scientific applications.