

# Optromix DSY

## CW Single-Frequency Fiber Laser

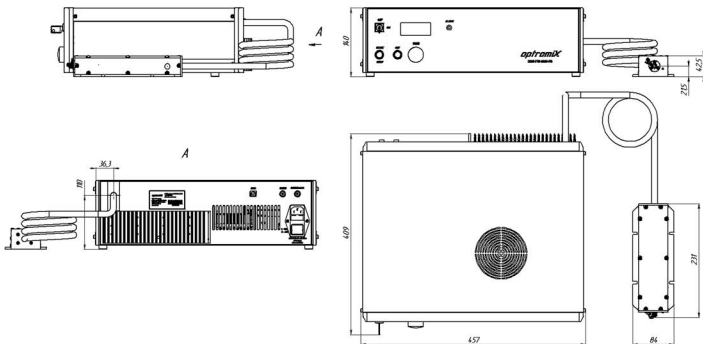
Wavelengths Standard 515 nm, 532 nm, 546.5 nm  
Custom: Any 516 – 561

### KEY FEATURES

- Ultra-Narrow Linewidth
- Thermal Wavelength Tuning
- Fast Piezo Tuning
- Low RIN Level
- Computer Control



### DIMENSIONS



# Specifications

## Optical

Parameter	Optromix-DSY-5xx
Operating mode	CW, Single Frequency, TEM <sub>00</sub>
Central Wavelength <sup>1</sup>	515 nm, 532 nm, 546.5 nm
Nominal Output Power	50mW, 100mW, 200mW, 500mW, 1000mW, 2000mW
Linewidth (FWHM)	< 200 kHz
Power Tunability	10 – 100%
Power Stability <sup>2</sup>	< 0.5% (typical <0.2%)
Wavelength Stability <sup>3</sup>	< 200 MHz
Pointing Stability	< +/- 0.5 $\mu$ rad/°C
Thermal Tuning Range	+/- 0.1 nm
Piezo Tuning Range <sup>4</sup>	+/- 15 pm
Optical Output <sup>5</sup>	Free Space (Laser Head)
RIN level (peak: app 1.4 MHz)	< -110 dB/Hz@peak, < -140 dB/Hz@10MHz
Beam quality (M <sup>2</sup> )	< 1.05 (typical <1.02)
Beam Diameter <sup>6</sup>	0.6 mm
Beam divergence <sup>7</sup>	< 2 mrad
Polarization	Linear (> 100:1)

### Notes

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|--|--|
| 1. 5**.* nm +/- 0.15 nm by demand, Custom wavelengths 516 – 561 nm.                  | 5. Optional Output: Fiber Port             |
| 2. Over 1 Hour with base temperature constant within 0.2 °C after 30 minute warm-up  | 6. 0.5- 1.0 mm by request                  |
| 3. Over 1 Hour with base temperature constant within 0.2 °C after 30 minute warm-up. | 7. Depending on the required beam diameter |
| 4. External PZT Driver 0-120V  |  |

## Electrical / Mechanical / Environmental

Parameter	Optromix-DSY-5xx
Power Supply Requirements	100 – 240 V, 50 – 60 Hz, Single Phase
Power Consumption (1W output)	< 500 W
Control Connector <sup>1</sup>	USB
Cooling	Forced Air
Dimensions (WxHxL)	Electro-optical Unit: 449 mm x 140 mm x 365 mm Head: 84 mm x 42 mm x 229 mm
Weight	< 15 kg
Operation temperature	10 – 35 °C
Storage temperature	- 40 – +70 °C
Operation Humidity	10 – 85 %
MTBF	> 10,000 Hrs
Standard Umbilical Cable Length <sup>2</sup>	1.2 m

### Notes

- |   |                                |
|---|--------------------------------|
| 1. Optional Connectors: RS232, Ethernet | 2. Optional lengths: up to 2 m |
|---|--------------------------------|

Warranty: Standard Warranty - 12 months from the date of delivery.

Product code:

Optromix-DSY-5xx-yyyy-cc

xx	Wavelength (nm)
yyyy	Output power (mW)
cc	Optical output: FS - free space, FP-Fiber Port

Information in this document is a subject to change without notice.



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