

Solo 640

Single Frequency CW DPSS Laser



The Solo 640 Series delivers unrivalled continuous-wave single frequency performance at market-leading output powers from a small footprint — making it suitable for integration with existing systems and a wide range of applications. The Solo 640 provides outstanding beam characteristics, high output stability, extremely low noise, and versatile software package.

KEY FEATURES



Narrow Linewidth
 ≤ 0.5 MHz



High Power Stability
 ≤ 2.0 % over 8 hours



High Spectral Stability
 ± 1 pm over 8 hours



Excellent Beam Quality

APPLICATIONS

Raman Spectroscopy - Brillouin Scattering
Holography - Flow Cytometry - Optical Manipulation - Semiconductor - Imaging - Metrology - Interferometry, and more.

Specifications

Output Beam Parameters:

Output Power	500, 750, or 1000 mW*
Wavelength	640 nm
Spectral Bandwidth	≤ 0.5 MHz
Spatial Mode	TEM ₀₀
Spectral Stability	± 1.0 pm (over 8 hour operation)
Coherence Length	> 100 m
Output Power Stability	≤ 2.0 % (over 8 hour operation)
Output Power Noise	≤ 0.1 % RMS (10 Hz – 10 MHz)
Beam Divergence	≤ 1 mrad, diffraction limited
Beam Diameter at Output Aperture	0.8 – 1.2 mm
Beam Pointing Stability	≤ 5 μ rad/°C
Polarisation Ratio	$\geq 100:1$, vertical

Integration Features:

Plug-In USB Connectivity	Combined Heatsink
Versatile Control Software	Remote Diagnostic Support

Laser Head Dimensions:

L x W x H	207 x 80 x 65 mm
Beam Height	70 mm

Environmental Conditions:

Ambient Temperature Range	18 – 30 °C
Laser Head Interface Stability	± 1.5 °C
Storage	0 – 50 °C
Humidity	5 – 95 %, non-condensing

Optional Accessories:

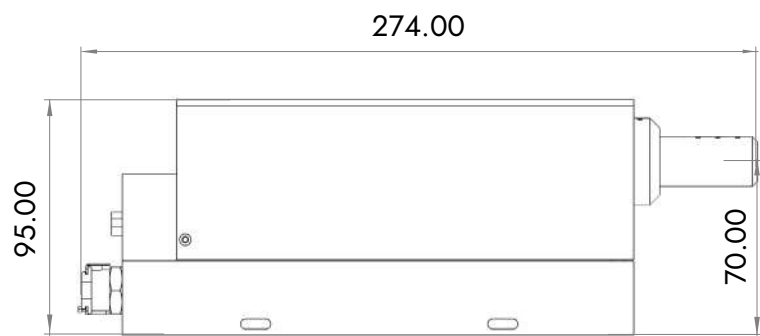
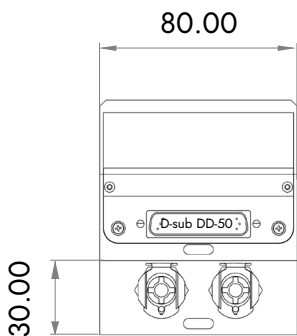
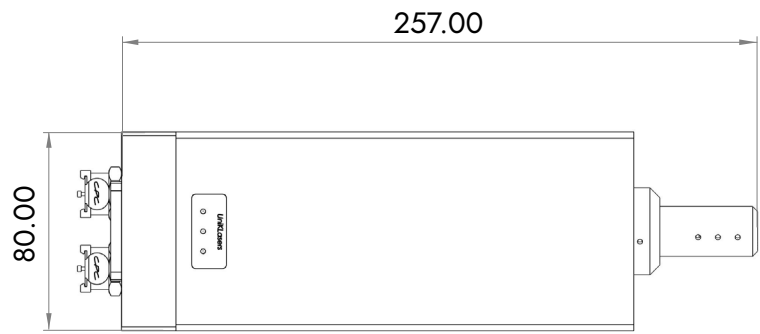
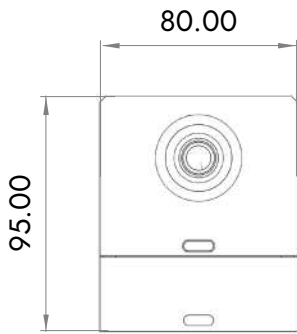
Heatsink	Fan-Assisted
	Water-Cooled with Thermoelectric Chiller
External Power Control Module	0 – 100 %, continuous
Tuning Range, mode-hop free	25 – 50 GHz

Low Power Alignment Beam Mode

* Other output powers available on request

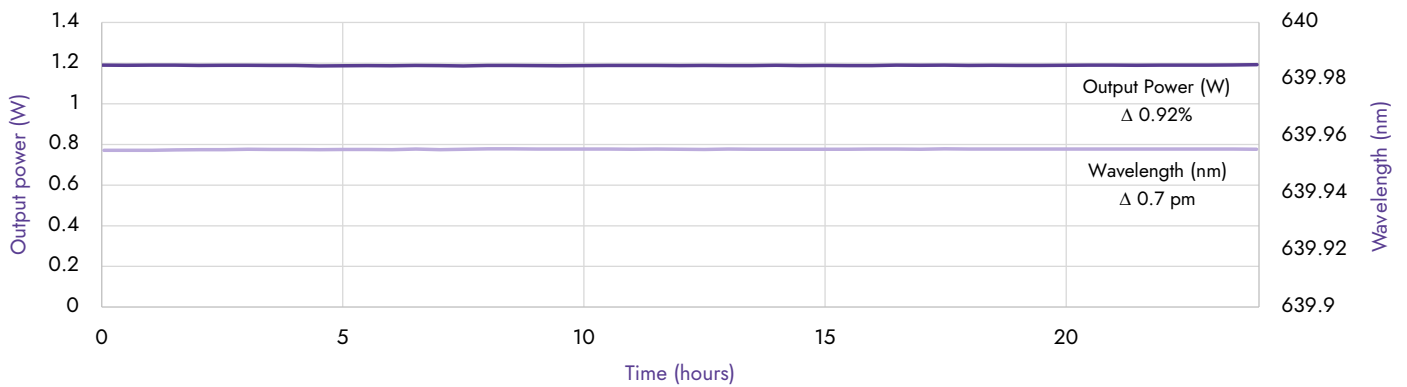
Laser and Heatsink Dimensions

274 x 80 x 95 mm



Performance Data

Longterm Wavelength and Power Stability



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DESIGNED & MANUFACTURED IN THE UK 



AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT
MAX. POWER: 1000 mW
(IEC 60825-1)