

LSS-0671-WF SERIES INFORMATION SHEET

The LSS-671 Series of Single-Frequency, Single Longitudinal Mode Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring extremely long temporal coherence and an extremely narrow spectral linewidth. This series of 671nm SLM lasers are available from >5mW to >50mW and maintain a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for various scientific purposes such as holography / interferometry, biological experiments, and a broad spectrum of other applications. The driver is available as a complete FDA-compliant system or as an O.E.M. component with significantly reduced dimensions in 80-260VAC, 12VDC, or 5VDC input voltage.

Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.



KEY FEATURES:

- TE cooled – no need for water cooling or external chiller
- Lightweight, compact design
- Remote laser output on/off control via 0-5V TTL signal
- Efficient DPSS technology runs on standard AC power (90 – 264 V, 47 – 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- LED display showing LD current, laser diode and cavity temperature
- FDA CDRH Compliant Class IIIb enclosure
- 48-hour replacement coverage available for an additional fee

CUSTOM OPTIONS:

- Fiber coupling – The LSS-0671 series can be fiber-coupled to the customer's choice of fiber optic cable; the most common types of connectors are FC and SMA-905. Unless otherwise specified, armored fiber will be used to avoid damage during transport and use. Please see the fiber coupling efficiency chart on Page 3 to ensure sufficient output power for your application.
- Custom optics – The output beam can be shaped per the customer's requirements, including customizable beam diameter, divergence and ellipticity. Line-generating optics can be installed to match the customer's requirements.
- Operating Voltage – By special request, the LSS-0671 series can be configured to run on either AC or DC current at nearly any voltage that the customer requires.

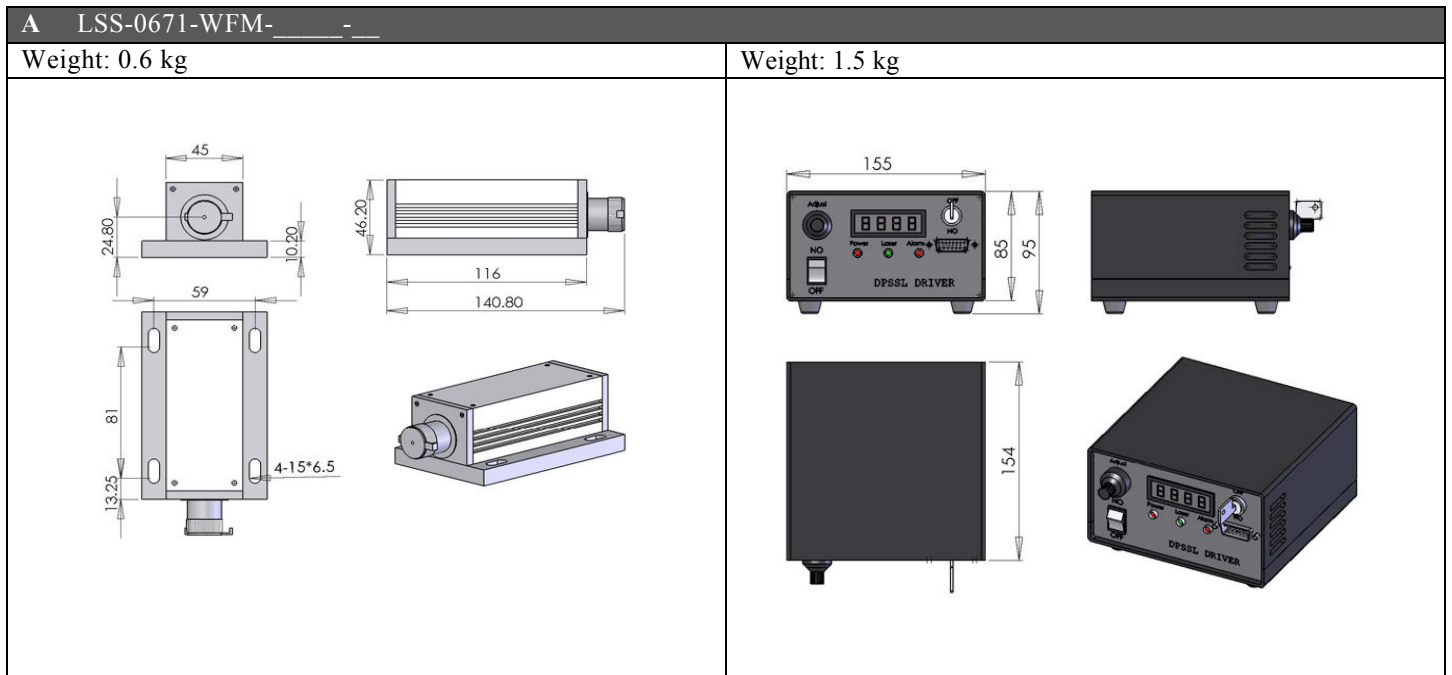
SPECIFICATIONS: (Please see model number/ SKU reference table on Page 5 for full model number/SKU.)

Dimensional Drawing Reference (see below)		A
Model	LSS-0671-	WFM-____-__
Wavelength (nm)		671
Actual Centre Wavelength (nm)		670.83
Output Power		<5mW >10 mW >30 mW >50 mW
Output Power Stability¹ (RMS/4 hrs.)		<5%, <3%
Warm-up time (min)		<15
Noise Amplitude (rms, 1~20MHz)		<0.5%
M² Factor		<1.2
Longitudinal Mode		Single
Beam Divergence (mrad)		<1.5
Beam diameter at aperture (mm)		~2.0
Beam height from base (mm)		24.8
Spectral linewidth (nm)		<0.0001
Polarization ratio		>50:1 (45 degrees)
Coherence Length (m)		>50 ²
Pointing stability after warm-up (mrad)		<0.05
Operating temperature (°C)		10-35
Transverse Mode		TEM ₀₀
Operating Mode		Continuous Wave (CW)
Expected Lifetime (hours)		10000
Warranty		1 Year
Modulation		Not Available
Power Supply		90-264VAC

¹ Stability values guaranteed only after operating continuously at full power for a minimum of 10 minutes.

² Please specify exact coherence requirements when placing order.

DIMENSIONAL DRAWINGS (please refer to model number in specifications chart above):



FIBER COUPLING OPTIONS:

1. Fiber connector only: Please specify connector type (SMA-905 or FC) and the core diameter of the fiber you will be using.
2. Permanent coupling: Fiber cable will be aligned for maximum efficiency and permanently bonded in place to ensure reliability.
3. Detachable coupling: Fiber cable will be removable from coupler and can be swapped for a different cable. As this allows some variability in alignment, coupling efficiency will be slightly less than outlined below. (Not available for coupling to Single Mode fibers).

Fiber Type:	Single Mode	Multi Mode	Multi Mode	Multi Mode
Core Diameter:	4-9 μ m	$\geq 100\mu$ m	$\geq 200\mu$ m	$\geq 400\mu$ m
Coupling Efficiency:	>15%	>50%	>80%	>90%
Example using >100mW laser:	>15mW fiber output	>50mW fiber output	>80mW fiber output	>90mW fiber output

MODEL NUMBER / SKU REFERENCE

LSS-0671 SERIES MODEL NUMBER / SKU REFERENCE			
Output Power	Stability		
	<5%	<3%	<1%
	Lab Spec		
<5mW	LSS-0671-WFM-0003A-05 SKU# S670005FX	LSS-0671-WFM-0003A-03 SKU# S670003FX	LSS-0671-WFM-0003A-01 SKU# S670001FX
>10mW	LSS-0671-WFM-00010-05 SKU# S670105FX	LSS-0671-WFM-00010-03 SKU# S670103FX	LSS-0671-WFM-00010-01 SKU# S670101FX
>30mW	LSS-0671-WFM-00030-05 SKU# S670305FX	LSS-0671-WFM-00030-03 SKU# S670303FX	LSS-0671-WFM-00030-01 SKU# S670301FX
>50mW	LSS-0671-WFM-00050-05 SKU# S670505FX	LSS-0671-WFM-00050-03 SKU# S670503FX	LSS-0671-WFM-00050-01 SKU# S670501FX

FOR FURTHER INQUIRIES PLEASE CONTACT:

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