

## LRS-0671-TF SERIES INFORMATION SHEET

The LRS-0671 Series of Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring <math><5\text{mW}</math> to 4W of 671nm laser light with a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost. These lasers are commonly used for fluorescence excitation, PIV, laser display 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. Please ask for an information sheet for other models.



### KEY FEATURES:

- Air cooled – no need for water cooling or external chiller
- Lightweight, compact design
- Efficient DPSS technology runs on standard AC power (85 – 264 V, 47 – 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- 10kHz TTL modulation (input via BNC connector)<sup>1</sup>
- FDA CDRH Compliant Class IIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee

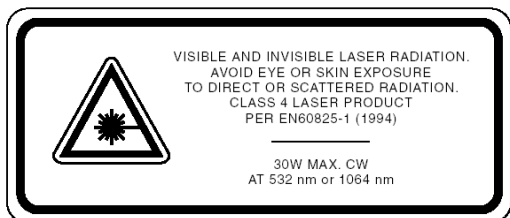
### CUSTOM OPTIONS:

- Fiber coupling – The LRS-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 4 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 LRS-0671 series can be configured to run on either AC or DC current at nearly any voltage that the customer requires.

<sup>1</sup> Output may not reach full power as per specifications when modulating at this speed

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

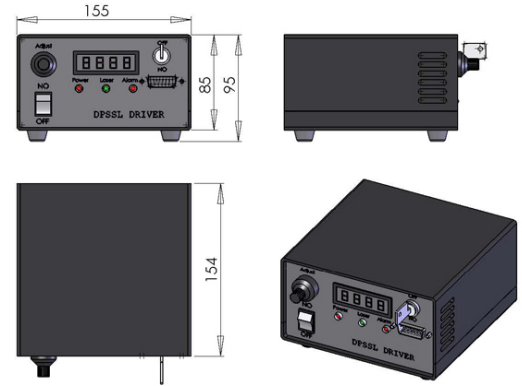
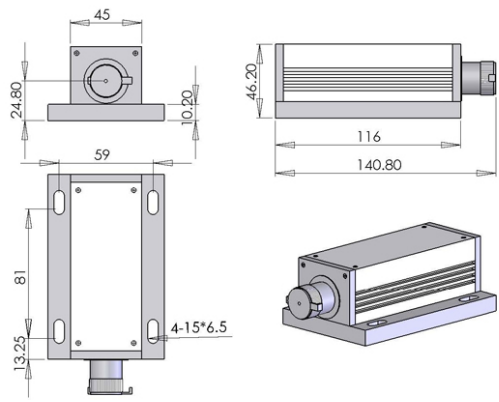
Dimensional Drawing Reference (see below)		A	B	C	C
Model	LRS-0671-	TFM-_____-	TFH-_____-	TFN-_____-	TFW-_____-
Wavelength (nm)		671 (+/-1)	671 (+/-1)	671 (+/-1)	671 (+/-1)
Actual Centre Wavelength (nm)		670.5	670.5	670.5	670.5
Output Power		<5 mW >5mW >10mW >30 mW >50mW >100 mW >200 mW >300 mW	>500 mW >1000 mW	>2000 mW	>3000 mW >4000 mW
Output Power Stability <sup>2</sup> (RMS/4 hrs.)		<10%	<10%	<10%	<10%
Warm-up time (min)		<15	<10	<10	<15
M <sup>2</sup> Factor		<1.2	<2.0	<3.0	~3.0-6.0
Beam Divergence (mrad)		<1.5	<1.5	<1.5	<2.0
Beam diameter at aperture (mm)		~2.0	~3.0	~3.0	~4.0
Beam height from base (mm)		24.8	29.0	68.2	93.5
Spectral linewidth (nm)		0.20	0.12	0.20	0.20
Polarization ratio		>100:1	>100:1	>100:1	>100:1
Pointing stability after warm-up (mrad)		<0.05	<0.05	<0.05	NA
Operating temperature (°C)		10-35	10-35	10-35	10-35
Transverse Mode		TEM <sub>00</sub>	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>
MTTF (hours)		>10000	>10000	>10000	>10000
Limited Warranty		1 year	1 year	1 year	1 year
Operating Mode		CW	CW	CW	CW
Power Supply		90-264VAC	90-264VAC	90-264VAC	90-264VAC



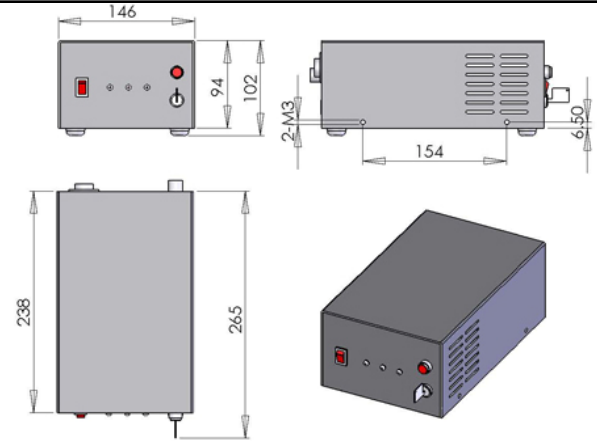
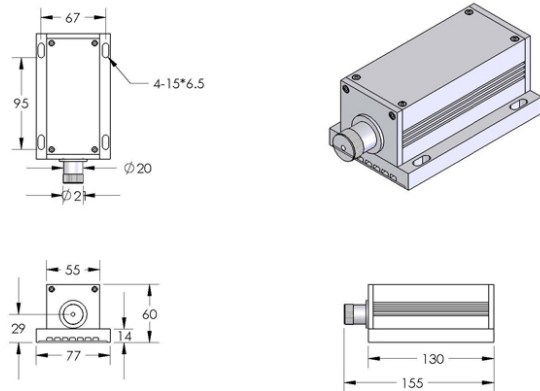
<sup>2</sup> Stability values guaranteed only after operating continuously (not modulated) at full power for a minimum of 10 minutes.

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

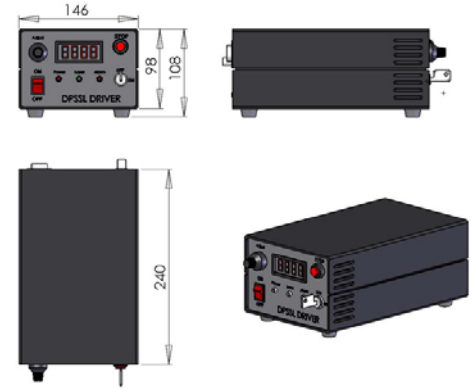
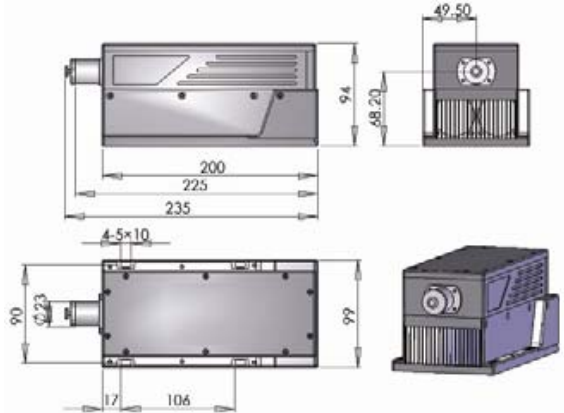
**A LRS-0671-TFM-\_\_\_\_\_**

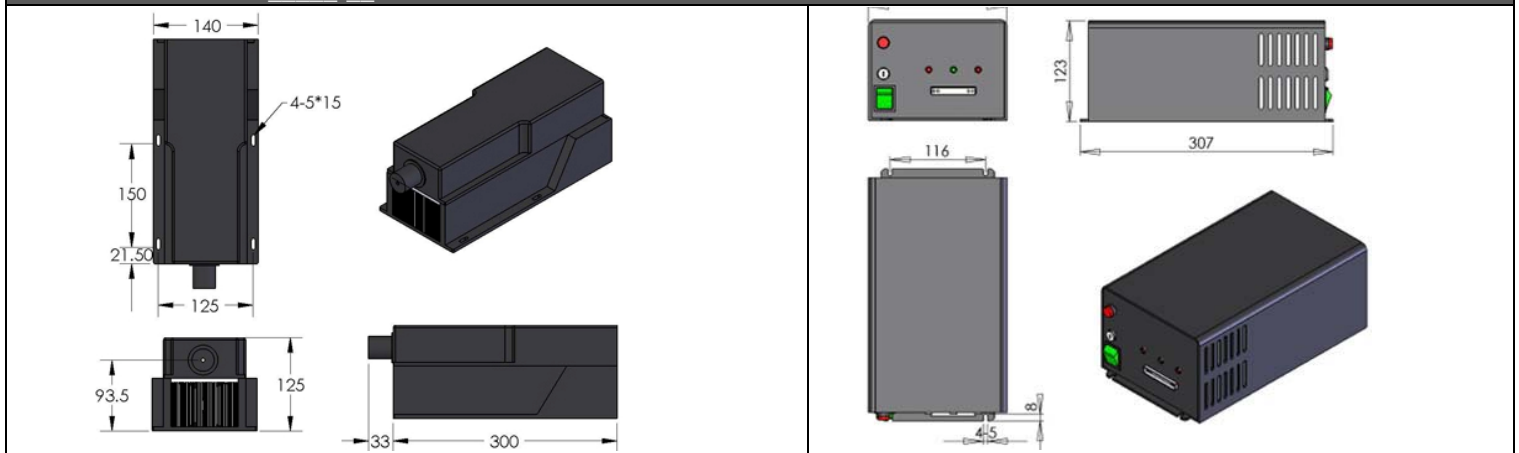


**B LRS-0671-TFH-01000-\_\_\_\_\_**



**C LRS-0671-TFN-02000-\_\_\_\_\_**





**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).

<b>Fiber Type:</b>	Single Mode	Multi Mode	Multi Mode	Multi Mode
<b>Core Diameter:</b>	4-9µm	≥100µm	≥200µm	≥400µm
<b>Coupling Efficiency:</b>	>15%	>50%	>80%	>90%
<b>Example using &gt;100mW laser:</b>	>15mW fiber output	>50mW fiber output	>80mW fiber output	>90mW fiber output

FOR FURTHER INQUIRIES PLEASE CONTACT:

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