

LLS-0473-CF SERIES INFORMATION SHEET

The LLS-0473 Series of Low-Noise Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring up to 600 mW of 473 nm laser light with a high level of output power stability, low optical noise and long operating lifetime at an aggressively competitive cost. These lasers are commonly used for fluorescence excitation, PIV, instrumentation, 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:

- **<1% optical noise (1-20 MHz)**
- 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
- FDA CDRH Compliant Class IIIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee

CUSTOM OPTIONS:

- **Fiber coupling** – The LLS-0473 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 LLS-0473 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 4 for full model number/SKU.)

Dimensional Drawing Reference (see below)		A
Model	LLS-0473-	CFO-_____-
Wavelength (nm)		473 (+/-1)
Actual Centre Wavelength (nm)		472.58
Output Power		<5 mW >10 mW >50 mW >100 mW >300 mW >600 mW
Output Power Stability ₁ (RMS/4 hrs.)		<5%, <3%, <1%
Noise amplitude (RMS, 1-20 MHz)		<1%
Warm-up time (min)		<15
M ² Factor		<1.2-1.5
Beam Divergence (mrad)		<1.5
Beam diameter at aperture (mm)		~2.0-3.0
Beam height from base (mm)		27.4
Polarization ratio		>100:1
Pointing stability after warm-up (mrad)		<0.05
Operating temperature (°C)		10-35
Transverse Mode		Near TEM ₀₀
MTTF (hours)		>10000
Limited Warranty		1 year
Operating Mode		CW
Power Supply		90-264VAC

¹ Stability values guaranteed only after operating continuously at full power for a minimum of 15 minutes.

DIMENSIONAL DRAWINGS:

A LLS-0473-CFO-_____ - _____	
Weight: 2.0 kg	Weight: 2.3 kg

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 μ m	\geq 200 μ m	\geq 400 μ m
Coupling Efficiency:	>15%	>50%	>80%	>90%
Example using >100mW laser:	>15mW fiber output	>50mW fiber output	>80mW fiber output	>90mW fiber output

FOR FURTHER INQUIRIES PLEASE CONTACT:

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