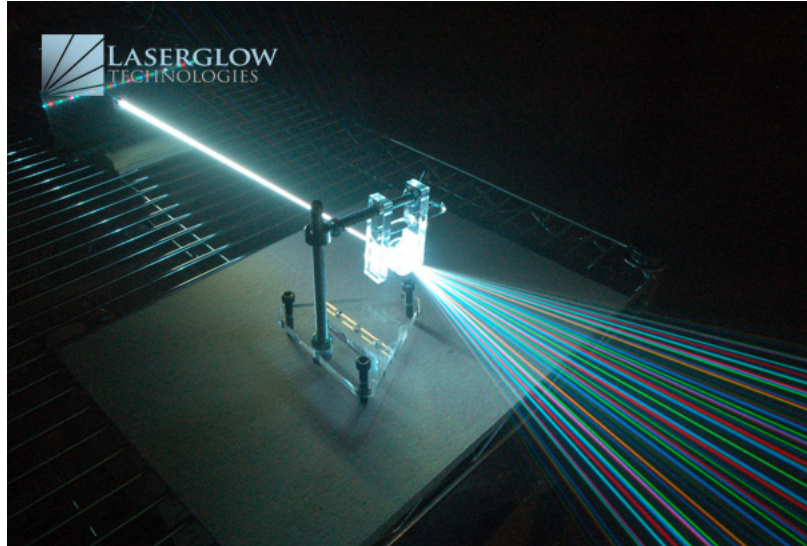


## Arktis Laser Product Datasheet

### LMM-RGB1 Combined Triple-Wavelength Laser System

#### Series Specifications:

|                    |                        |
|--------------------|------------------------|
| Nominal Wavelength | 473 nm, 532 nm, 635 nm |
| Output Type        | CW                     |
| Laser Source Type  | DPSS & Diode           |



#### Overview:

The LMM-RGB1 Series of Combined-wavelength Diode-Pumped Solid-State (DPSS) / Diode Lasers are ideal for applications requiring red, green, and blue wavelengths to be emitted from a single laser module. These RGB laser systems are available from 500 mW to 1 W combined 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 laser light shows (entertainment) as well as a variety of scientific applications including, PIV, Raman Spectroscopy, 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.

Available with TTL and Analog modulation, and in a wide array of output power and stability levels, Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.

#### 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
- TTL and Analog modulation (input via BNC connector) *lab-spec models only*
- Adjustable output power via lockable dial) *lab-spec models only*
- LED display showing LD current, laser cavity temperature *lab-spec models only*
- FDA CDRH Compliant Class IIIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

#### Package Includes:

- Laser Head
- Driver/Power Supply
- Power Cable
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock
- Hard-shell Carrying Case

## Specifications:

This spec sheet has been generated specifically for part number M32-3, per your request. Each column represents the specifications of the individual component lasers that make up the multi-wavelength system.


|   |         |         |         |
|---|---------|---------|---------|
| Component Laser Wavelength (nm)         | 635     | 473     | 532     |
| Output Power (mW)                       | >200    | >200    | >200    |
| Output Power Stability (%RMS/4h)        | <3      | <3      | <3      |
| Divergence (mrad, full angle)           | <2.5    | <1.5    | <1.5    |
| Beam Dimensions (mm, 1/e <sup>2</sup> ) | 5x8     | 3       | 2       |
| M <sup>2</sup>                          |         | <2      | <1.2    |
| Max. Analog Modulation Freq. (Hz)       | 30000   | 30000   | 30000   |
| Max. TTL Modulation Freq. (Hz)          | 30000   | 30000   | 30000   |
| Modulation Input Signal                 | 0-5 VDC | 0-5 VDC | 0-5 VDC |
| Total Power Consumption (W)             | 16      | 80      | 32      |
| Max. Power Input Duty Cycle             | 100%    | 100%    | 100%    |
| Standard Warranty (months)              | 12      | 12      | 12      |
| MTTF (operational hours)                | 10000   | 10000   | 10000   |

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

## Power Supply Options:

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

|  | Power Supply Type:       | FR                         | FF                          | FM                                |
|--|--------------------------|----------------------------|-----------------------------|-----------------------------------|
| FDA-Compliant LabSpec<br> | Input Power              | 85v to 264v                | 85v to 264v                 | <b>85v to 264v</b>                |
|  | Power Supply Weight (kg) | 1.5                        | 2.6                         | <b>1.5</b>                        |
|  | Dimensions (mm)          | 154 (l) x 155 (w) x 95 (h) | 268 (l) x 145 (w) x 106 (h) | <b>154 (l) x 155 (w) x 95 (h)</b> |

Multi-wavelength lasers include a separate power supply for each wavelength. In some cases the power supply for each wavelength may be slightly different in size. If the dimensions of the power supply are a concern for you please inquire with us before placing your order.

\*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

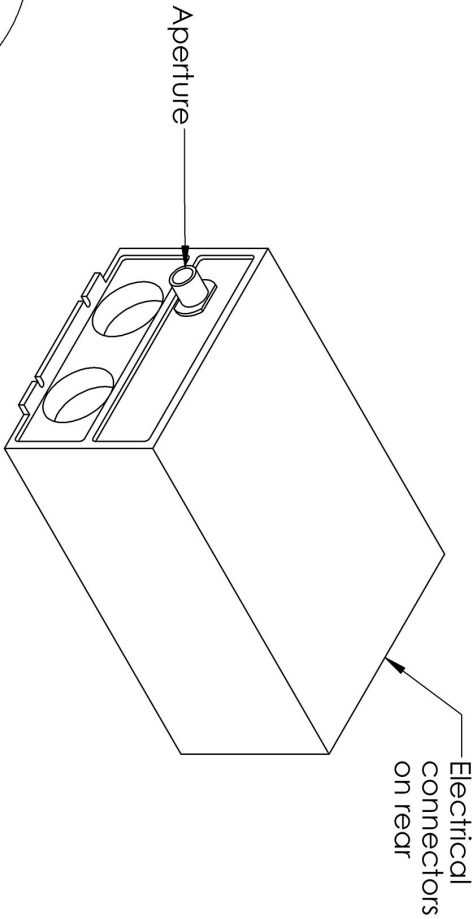
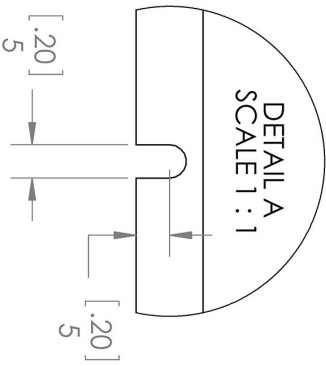
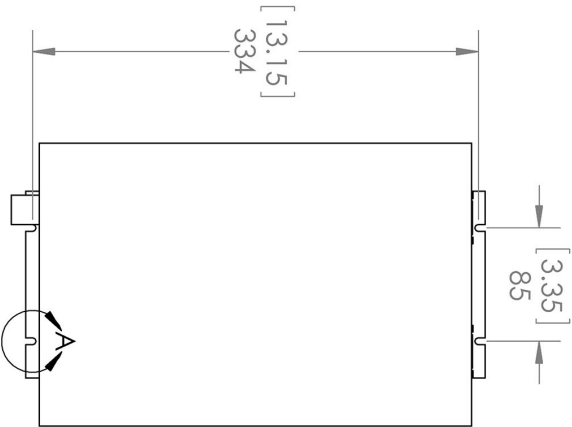
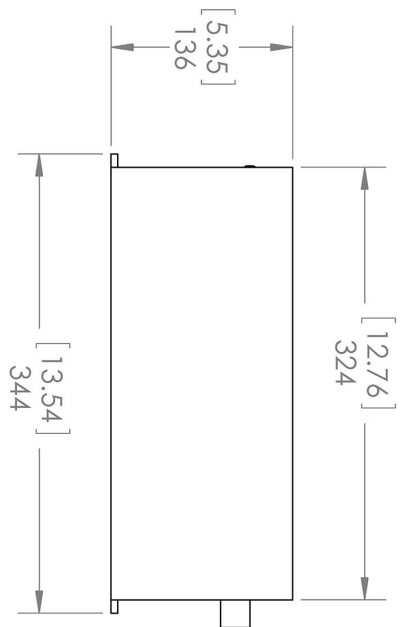
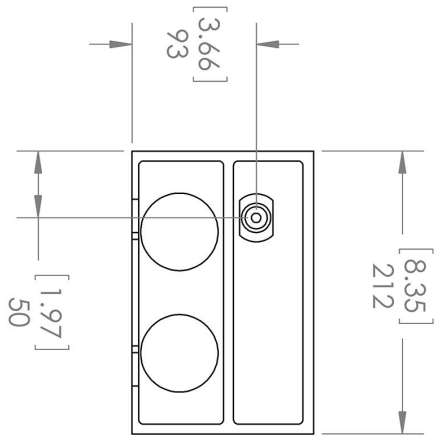
\*Dimensions for fiber-integrated (I\_) include laser head packaged inside.

## Regulatory Classification:

The model you have selected (M32-3) requires the following safety label(s):



**Dimensional Drawing - Laser Form Factor: 3:**



|  |              |
|--|--------------|
| TITLE:<br><b>Laserglow Technologies</b>  |              |
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN MM(INCH)<br>TOLERANCES: +/- 0.75 MM   |              |
| THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LASERGLOW TECHNOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LASERGLOW TECHNOLOGIES IS PROHIBITED. © 2012 LASERGLOW.COM LIMITED. ALL RIGHTS RESERVED |              |
| SCALE: 1:5   | SHEET 1 OF 1 |
| <b>Lab/OEM</b><br><b>3 Housing</b><br>REV 1  |              |

**Dimensional Drawing - Power Supply Form Factor: FM:**



UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN MM(INCH)  
 TOLERANCES: +/- 0.75 MM

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Laserglow Technologies

TITLE:

**Power Supply**  
**FM/FR**






REV  
**1**

SCALE: 1:3

SHEET 1 OF 1

## Accessories:

The most popular accessories for model M32-3 are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number  | Description  |                     |
|--|--|---------------------|
| <br>ACS-VISHXA  | SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm)<br>(installed and aligned)<br>11mm diameter input lens<br>Full Details: <a href="http://www.arktislaser.com/ACS">www.arktislaser.com/ACS</a> |                     |
| <br>ACF-VISHXA  | FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm)<br>(installed and aligned)<br>11mm diameter input lens<br>Full Details: <a href="http://www.arktislaser.com/ACF">www.arktislaser.com/ACF</a>   |                     |
| <br>ACALB237X   | Carrying Case-107<br>Holds Lab/OEM 2/3 wavelength Labspec laser<br>Full Details: <a href="http://www.arktislaser.com/ACA">www.arktislaser.com/ACA</a>  | Included With Laser |
| <br>AFF2002XX   | Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length<br>Full Details: <a href="http://www.arktislaser.com/AFF">www.arktislaser.com/AFF</a>   |                     |
| <br>AFS2002XX | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length<br>Full Details: <a href="http://www.arktislaser.com/AFS">www.arktislaser.com/AFS</a>  |                     |

## FOR MORE INFORMATION PLEASE CONTACT:

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Tel. 1-416-886-1178 Fax 1-647-874-7129  
[sales@arktislaser.com](mailto:sales@arktislaser.com) [www.arktislaser.com](http://www.arktislaser.com)

E&OE: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.