Laserglow Product Datasheet

LBS-532 Brightline Pro Complex
Pattern Projecting Laser

Laserglow Part Number: BOG020221

Similar Products:
For information about the other lasers in this product family visit:
http://www.laserglow.com/BOG

Ordering:
Order Online Now or Request Quote:
http://www.laserglow.com/BOG020221

Series Specifications:
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Wavelength</td>
<td>532 nm</td>
</tr>
<tr>
<td>Output Type</td>
<td>CW</td>
</tr>
<tr>
<td>Laser Source Type</td>
<td>DPSS</td>
</tr>
</tbody>
</table>

Overview:
Laserglow’s Brightline DOE (Diffractive Optical Element) laser modules are ideal for any application where you require a highly visible pattern projected onto a surface. These green laser modules are available in a variety of circular, grid and parallel line patterns. (See Specifications tab for details.) The Brightline Pro Green DOE laser modules incorporate focus-adjustable optics, greatly increasing the precision for tasks requiring the highest level of accuracy or greater working distance. In addition, green lasers are four to five times more visible to the human eye compared to red lasers of the same output power, making the Brightline Pro Green lasers a versatile alignment solution for any lighting conditions.

Key Features:
- Starting at: $399
- Output Power: 5 mW to >40 mW
- Expected Life: 3000-5000 hours
- Projection Type: Parallel lines, Circles, Grids (of lines or dots), and Aiming Reticles (a circle with a cross overlaid)
- Key Feature: Projects a highly visible focus-adjustable green laser image for high precision applications.
- Minimum achievable line thickness: 0.25 mm at 30 cm
- Package Includes: Alignment laser mounted in block (mounting bracket, attenuator and power supply optional)
- Casing: Machined Aluminum
- Line Straightness: Better than 0.1% over full length
## Specifications:
This spec sheet has been generated specifically for part number BOG020221, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to BOG020221 have been highlighted below in **red + bold**.

<table>
<thead>
<tr>
<th>Specifications</th>
<th>BOG020221</th>
<th>B7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser Form Factor</td>
<td>B1</td>
<td>B7</td>
</tr>
<tr>
<td>Output Power (mW)</td>
<td>&lt;5, &gt;20</td>
<td>&gt;40</td>
</tr>
<tr>
<td>Output Power Stability (%RMS/4h)</td>
<td>&lt;20</td>
<td>&lt;20</td>
</tr>
<tr>
<td>IEC Safety Class</td>
<td>2, 3R</td>
<td>3R</td>
</tr>
<tr>
<td>Central Wavelength (nm)</td>
<td>531.65</td>
<td>531.65</td>
</tr>
</tbody>
</table>

### Projection Type (See below for detail)
- 25 Parallel Lines (DOE #254)
- 5 Concentric Circles (DOE #259)
- 5 Parallel Lines (DOE #252)
  - Circle of 72 Dots (DOE #221)
  - Circle with Central Dot (DOE #219)
  - Grid of Dots 101x101 (DOE #231)
  - Grid of Dots 51x51 (DOE #257)
  - Grid of Squares 50x50 (DOE #256)
- Reticule (DOE #260)
- Reticule of Dots (DOE #261)
- Viewfinder (DOE #288)

<table>
<thead>
<tr>
<th>Projection Fan Angle (°, full angle)</th>
<th>BOG020221</th>
<th>B7</th>
</tr>
</thead>
<tbody>
<tr>
<td>4, 5, 14, 16, 17, 20, 23, 27</td>
<td>5, 14, 17, 20, 23, 27</td>
<td></td>
</tr>
</tbody>
</table>

### Divergence (mrad, full angle)
- <0.1

### Beam Dimensions (mm, 1/e²)
- 4

### Minimum Achievable Beam Diameter
- 0.25 mm at 0.3 m

### Transverse Mode
- Near TEM00

### Longitudinal Modes
- Multiple

### Operating Temperature Range (°C)
- 10 to 35

### Storage Temperature Range (°C)
- -10 to 50

### Max. TTL Modulation Freq. (Hz)
- 200

### Modulation Input Signal
- 0-5 VDC

### Total Power Consumption (W)
- 2

### Max. Power Input Duty Cycle
- 100%

### Cooling Method
- Passive Air

### Standard Warranty (months)
- 6

### MTTF (operational hours)
- 5000

### Weight of Product or Laser Head (kg)
- 0.1

### Dimensions of Product or Laser Head (mm)
- 80 (l) x 20 (d)

### Power Supply
- 3.0 VDC input

**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:
The Brightline Economy and Brightline Pro series of alignment lasers accept direct DC input of 3.0 VDC. The power connector is a 5.5 mm OD, 2.1 mm ID DC Barrel Jack. (center pole positive.) If you do not want to provide DC current directly, we recommend that you use our AC power supply. The model number for the standard North American AC Power Supply is ABP00AFXX and you can find complete details here: [www.laserglow.com/ABP](http://www.laserglow.com/ABP). The dimensional drawing for the standard power supply is included on page 5 for your reference.

Regulatory Classification:
The model you have selected (BOG020221) requires the following safety label(s):

![Safety Label](image-url)
Accessories:
The most popular accessories for model BOG020221 are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Full Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC2SPXXX</td>
<td>2 Lead Brightline Splitter Cable</td>
<td><a href="http://www.laserglow.com/ABC">www.laserglow.com/ABC</a></td>
</tr>
<tr>
<td>ABF00AXXX</td>
<td>ABF-N.American Brightline 3V Standard Power Supply (80-260 VAC, N. American plug)</td>
<td>Included With Laser</td>
</tr>
<tr>
<td>ABB000XXX</td>
<td>ABB-standard Brightline Standard Mounting Bracket</td>
<td>Included With Laser</td>
</tr>
<tr>
<td>ADB000XXX</td>
<td>ADB-deluxe Brightline Deluxe Mounting Bracket</td>
<td><a href="http://www.laserglow.com/ADB">www.laserglow.com/ADB</a></td>
</tr>
<tr>
<td>ABLATTXXX</td>
<td>Brightline Attenuator c/w Optics</td>
<td><a href="http://www.laserglow.com/ABL">www.laserglow.com/ABL</a></td>
</tr>
<tr>
<td>AMMA00XXX</td>
<td>AMA-Mounting Arm Articulating Mounting Arm 1/4-20 thread</td>
<td><a href="http://www.laserglow.com/AMM">www.laserglow.com/AMM</a></td>
</tr>
<tr>
<td>AMAC00XXX</td>
<td>Articulating Arm with Claw Clamp</td>
<td><a href="http://www.laserglow.com/AMA">www.laserglow.com/AMA</a></td>
</tr>
<tr>
<td>AMC000XXX</td>
<td>AMC-Mounting Clamp Adjustable Mounting Clamp 1/4-20 thread</td>
<td><a href="http://www.laserglow.com/AMC">www.laserglow.com/AMC</a></td>
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FOR MORE INFORMATION PLEASE CONTACT:
LASERGLOW TECHNOLOGIES
99 Ingram Dr. Unit B, North York, ON, Canada M6M2L7
Tel. (416) 729-7976 Fax (480) 247-4864
sales@laserglow.com [www.laserglow.com](http://www.laserglow.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.