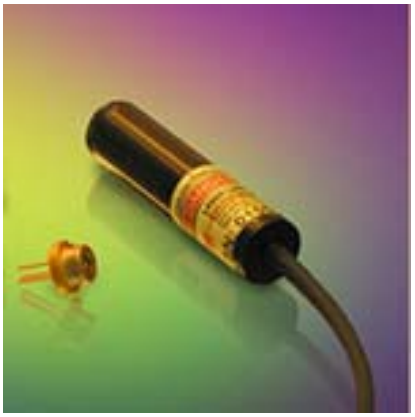
# DPGL Series Green Laser Line Module

***Part No: DPGL-0XS-*****



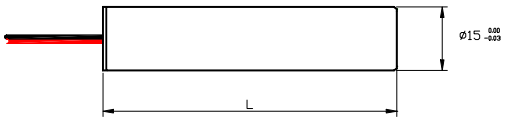
## Product Features

- High Stability and low noise
- Reverse Polarity Protection
- Custom Options Available

## Application

- Measurement
- Bioanalytical
- Automation
- Alignment

## Mechanical Drawing




**Operational Hazard-Semiconductor Laser Diode Module:** This laser module emits radiation that is invisible and harmful to human eye. When in use, do not look directly into the laser emitting aperture. Direct viewing of laser diode emission at close range may cause eye damage.

**Limited Warranty:** One year. No warranty coverage for disassembly, modifications or damage due to abuse or misapplication.

## Specification

| | |
|---|---|
| **OPTICAL** | |
| Wavelength | 532 nm |
| Optical Output Power | 0.4-5 mW[1] |
| Stability | <1% |
| Spatial Mode | $TEM_{00}$ |
| Laser Operation | Continuous |
| Fan Angles available | 30, 45, 90 deg |
| **ELECTRICAL** | |
| Operating Voltage[2] | 3 to 5 VDC |
| Operating Current | <300 mA |
| Control Circuit | Auto Power Control |
| Electrical Connections | +Red, -Black |
| **MECHANICAL** | |
| Dimension | See chart |
| Cable | 200mm |
| Operating Temperature | +10ºC to +30°C |
| Storage Temperature | -40ºC to +80°C |
| Heat Sink Requirements[3] | Recommended for extended use |

Notes

1. DPGL lasers are avaible in power ranges of 0.4 to 5mW. The part number will be DPGL-01S-60 for a laser with output power of 1mW and 60 degree fan angle.

2. Preferably operate at 3V, higher voltage will result in excessive heat.

3. Heat Sink: The DPGL Series Green Laser Module is designed to dissipate heat through its body. Do not restrict air circulation around the device; an additional heat sink can be used to maximize the performance and life time of the laser.

**Caution**: The case is internally connected to the circuit; damaging to the anodized surface may result in failure of the laser module.



Complies with CDRH 21CFR 1040.10

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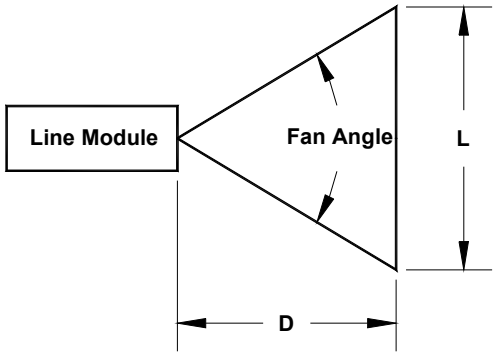
## Fan Angle Selection Guide




L: Line Length
D: Distance
a: Factor

For given Fan Angle, the Line Length **L** at distance **D** is calculated using the equation :

**$L = a \times D$**

For Example: using 4 º Fan Angle at distance of 1.5m, the Line Length will be L= 0.07 × 1.5m = 0.105m;

| Part No. | Fan angle | Factor a | Line Length(m) | | | Laser Class | Dimension (Diameter × Length) |
|---|---|---|---|---|---|---|---|
| | | | D=0.5m | D=1m | D=3m | | |
| DPGL-0.4S-30 | 30 º | 0.54 | 0.27 | 0.54 | 1.62 | 1(IEC) | 15mm × 69mm |
| DPGL-0.4S-45 | 45º | 0.83 | 0.42 | 0.83 | 2.49 | 1 (IEC) | 15mm × 69mm |
| DPGL-0.4S-90 | 90º | 2.00 | 1.00 | 2.00 | 6.00 | 1 (IEC) | 15mm × 75mm |
| DPGL-01S-30 | 30 º | 0.54 | 0.27 | 0.54 | 1.62 | II (FDA) | 15mm × 69mm |
| DPGL-01S-45 | 45º | 0.83 | 0.42 | 0.83 | 2.49 | II (FDA) | 15mm × 69mm |
| DPGL-01S-90 | 90º | 2.00 | 1.00 | 2.00 | 6.00 | II (FDA) | 15mm × 75mm |
| DPGL-05S-30 | 30 º | 0.54 | 0.27 | 0.54 | 1.62 | II (FDA) | 15mm × 69mm |
| DPGL-05S-45 | 45º | 0.83 | 0.42 | 0.83 | 2.49 | II (FDA) | 15mm × 69mm |
| DPGL-05S-90 | 90º | 2.00 | 1.00 | 2.00 | 6.00 | II (FDA) | 15mm × 75mm |

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