



GPD Series

Green Laser Module

DESCRIPTION

The GPD Series green laser diode module is a high stability, cost effective alternative for DPSS. The GPD features wavelengths of 405 - 520 nm with 1 mW - 50 mW of output power.

The GPD provides higher stability than most DPSS modules thanks to an internal photodiode which allows for Automatic Power Control. The GPD's stability is unmatched by inexpensive DPSS lasers.

The GPD Series laser modules are designed exclusively to host laser diodes that do not have their own internal photodiode. The GPD overcomes this challenge by integrating an internal photodiode after a collimating lens. This configuration allows for Automatic Power Control (APC) mode of operation. APC Control is not available on a majority of competing DPSS lasers at these wavelengths. The stability of this configuration can not be matched by inexpensive DPSS lasers.

The GPD can deliver from 1 mW to 50 mW of output power with a wavelength of 405 nm to 520 nm.

Additional design features include great wavelength stability, excellent optical power stability, and CW output. Users can adjust output power by turning a potentiometer on rear of the unit.

For Machine Vision applications, PTI suggest our PNF Series laser module at 510 nm. It offers even intensity line generators and other features specific to the machine vision industry.

In addition, Power Technology, Inc. provides custom design and manufacturing services that include high and low volume production, custom engineering, and customized connectors. Find out more. Call Power Technology today.

APPLICATIONS

- Aiming, Pointing, and Alignment
- Dimensional Scanning
- Road and Rail Inspection
- Fluorescence
- Illumination

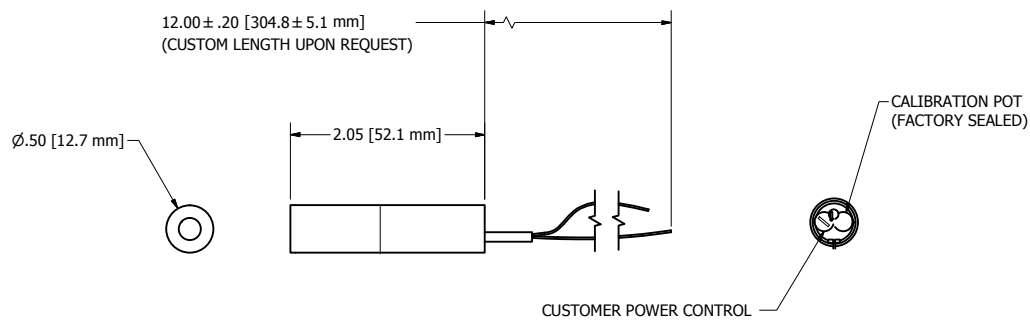
FEATURES & BENEFITS

- Automatic power control
- Internal photodiode
- High stability

SPECIFICATIONS

	GPD(405-50)	GPD(405-20)	GPD(450-40)	GPD(510-30)	GPD(520-40)
Wavelength (nm)	405	405	450	510	520
Color	Violet	Violet	Blue	Green	Green
Output Power (mW)	1 - 50	1 - 20	1 - 40	1 - 30	1 - 40
Output Power Stability @ 25°C	< ± 0.2%	< ± 0.2%	< ± 0.2%	< ± 0.2%	< ± 0.2%
Output Power Stability, over temp range	< ± 0.5%	< ± 0.5%	< ± 0.5%	< ± 0.5%	< ± 0.5%
Noise rms (10Hz - 5MHz)	< ± 1%	< ± 1%	< ± 1%	< ± 1%	< ± 1%
Beam Properties	Collimated	Collimated	Collimated	Collimated	Collimated
Beam Size (collimated, mm)	1.17 x 2.28	0.99 x 2.28	.92 x 2.3	0.81 x 2.36	0.81 x 2.36
Divergence (collimated)	< 1mRad	< 1mRad	< 1mRad	< 1mRad	< 1mRad
Spatial Mode	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀
User Focusable	No	No	No	No	No
Output Parameter	CW	CW	CW	CW	CW
Vibration (non-operating, Hz)	6 G (20 - 200)	6 G (20 - 200)	6 G (20 - 200)	6 G (20 - 200)	6 G (20 - 200)
Shock	TBD	TBD	TBD	TBD	TBD
Operating Voltage (VDC)	8	8	8	8	8
Maximum Operating Current (mA)	200	200	200	200	200
Temperature Range (°C)	0 - 35	0 - 35	0 - 35	0 - 35	0 - 35
Beam Pointing Stability (°C)	<10µRad/	<10µRad/	<10µRad/	<10µ	<10µRad/

MECHANICAL DRAWINGS



SAFETY WARNINGS



COMPLIANT & REGISTERED



J-STD-001 | 7711/7721 | A-610