中 国 长 春 新 产 业 光 电 技 术 有 限 公 司

**Changchun New Industries Optoelectronics Tech. Co.，Ltd**

# PGL-FS-445/447/450

Diode blue laser module is made features of ultra compact, long lifetime, low cost and easy operating, which made it be used widely in laser pointing, show and light applications. High quality beam properties make it useful in RGB mixed laser systems.

## SYSTEM SPECIFICATIONS*

| | | | | |
|---|---|---|---|---|
| Wavelength | nm | 445 | 447 | 450 |
| Wavelength tolerance | nm | ±10 | ±10 | ±10 |
| Output power | mW | 1-80 | | |
| Power stability(rms, over 4 hours) | | <5%, <3%, <1% | | |
| Operating mode | | CW | | |
| Transverse mode | | Near $TEM_{00}$ | | |
| Beam diameter at the aperture($1/e^2$) | mm | ~4.5 | | |
| Beam divergence, full angle | mrad | <1 | | |
| Warm-up time | minutes | <10 | | |
| Beam height from base plate | mm | 15 | | |
| Expected lifetime | hours | 10000 | | |
| Warranty | years | 1 | | |

## ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Operating voltage(PSU-II-OEM) | 7V (TTL30kHz or Analog 0-5V,optional) |
| Connection | Cable with flying leads |
| Operating voltage(PSU-V-OEM) | 100-240VAC(TTL30kH and Analog 0-5V,optional) |
| Operating voltage(PSU-I-OEM) | 12VDC (TTL30kHz and Analog 0-5V,optional) |
| Connection | 9 pin connector |

## ENVIRONMENTAL CONDITIONS

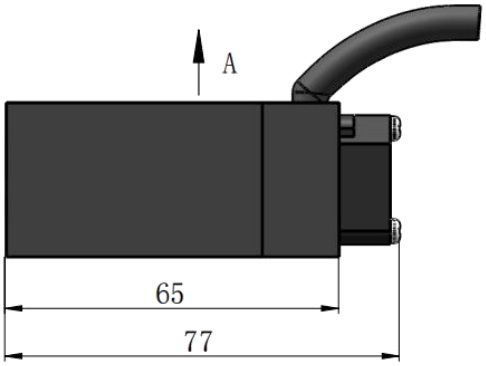
| | |
|---|---|
| Operating temperature | -10°C to 50°C |
| Storage temperature | -20°C to 80°C |
| Humidity | < 90%, non-condensing |

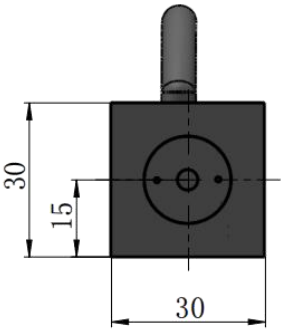
## MECHANICAL SPECIFICATIONS

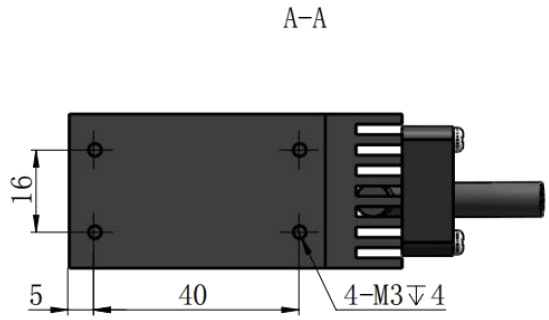
| | |
|---|---|
| Dimensions of laser head | 77(L)×30(W)×30(H)$mm^3$ |
| Material | Aluminum |

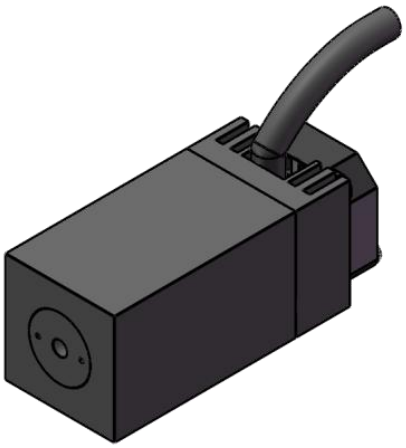
**All testing data under the conditions of temperature 25°C.*

Dimensions of laser head(77×30×30mm$^3$)

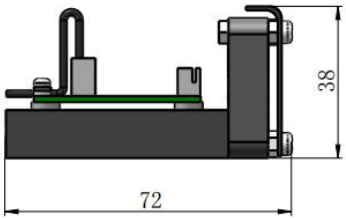


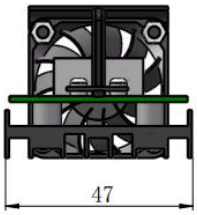



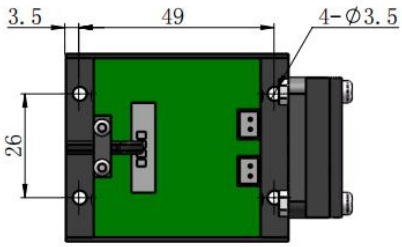



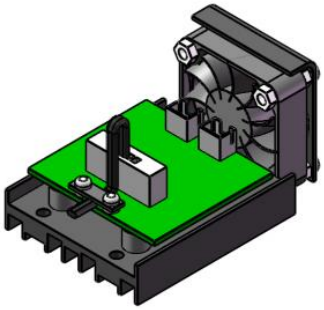



Dimensions of PSU-II-OEM power supply(72×47×38mm3, 7VDC, TTL 30kHz or Analog 0-5V)

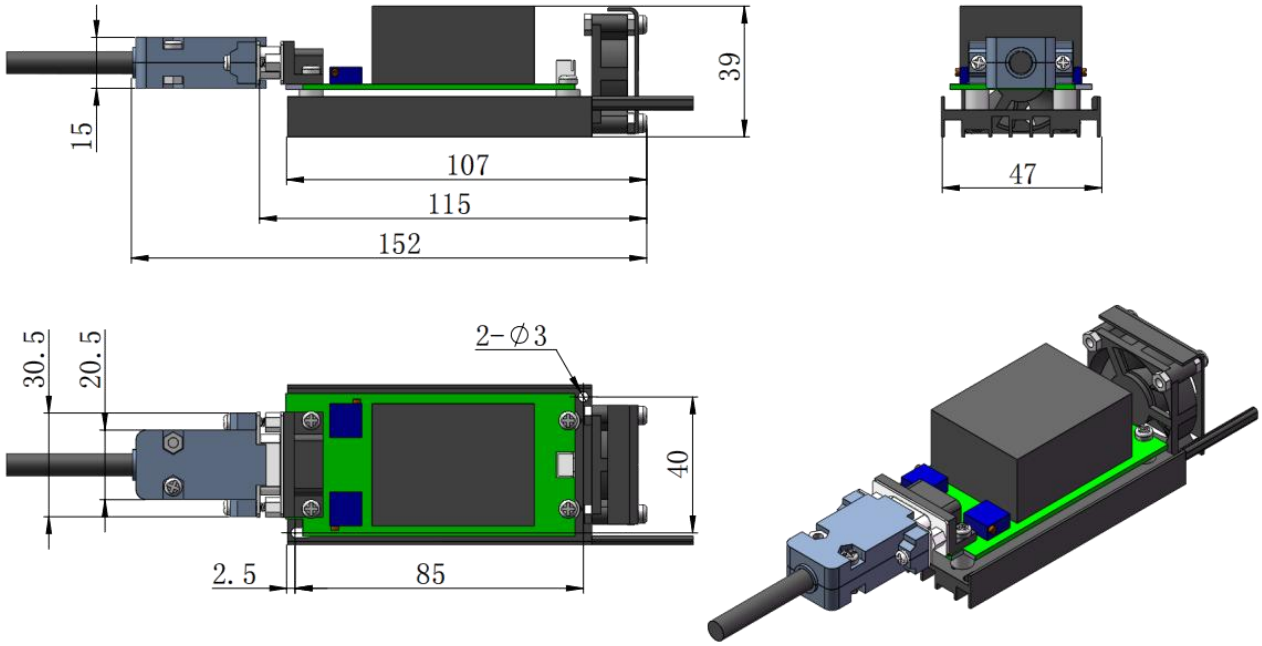


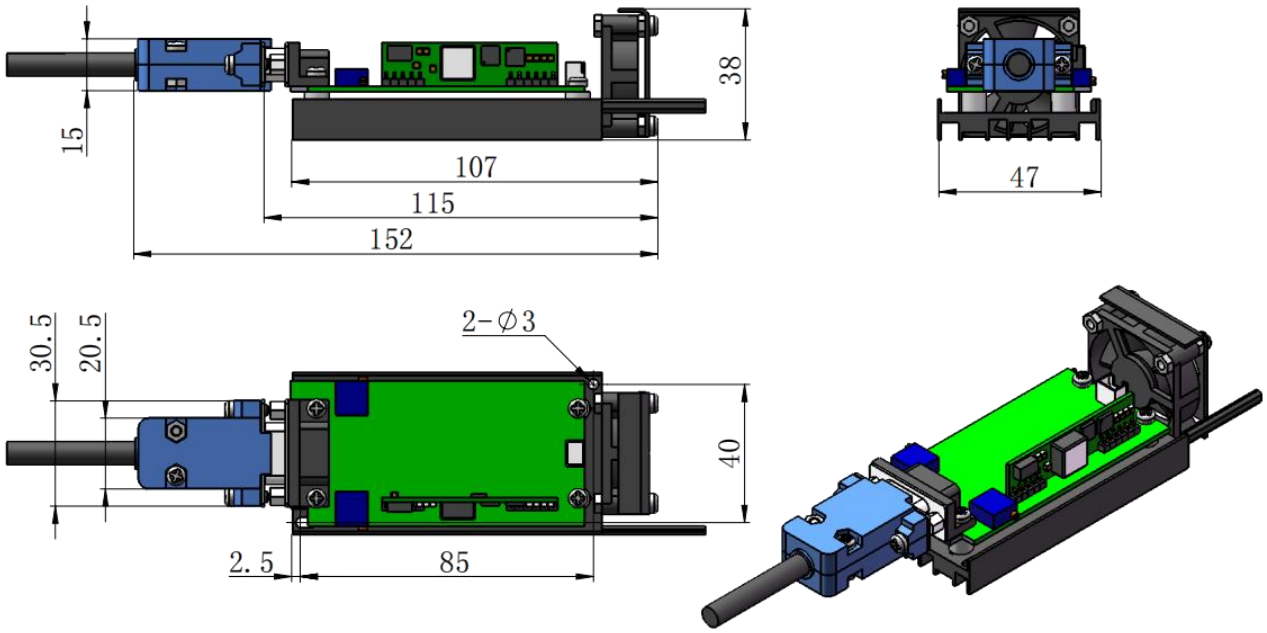
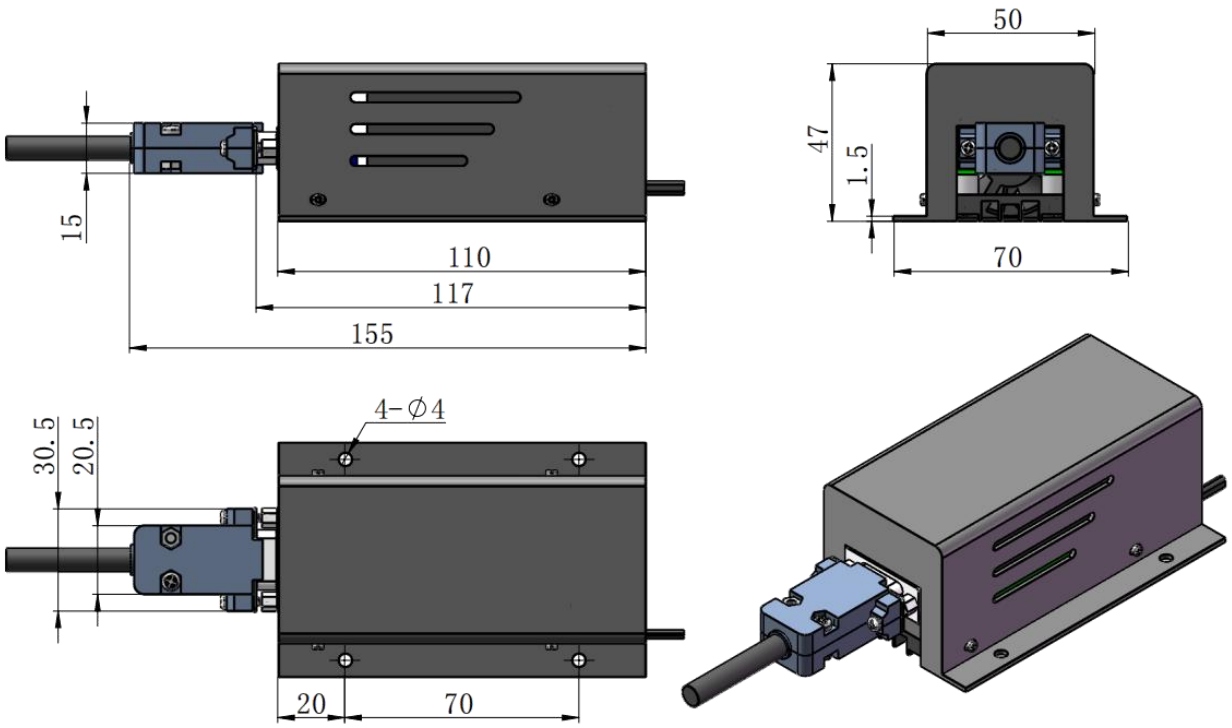



Dimensions of PSU-V-OEM power supply
(107×47×39mm$^3$, 100-240VAC, TTL 30kHz and Analog 0-5V)




Dimensions of PSU-I-OEM power supply(107×47×38mm$^3$, 12VDC, TTL 30kHz and Analog 0-5V)



Dimensions of PSU-V-OEM and PSU-I-OEM power supply with dust cover(110×70×47mm$^3$)