Triple Wavelength Laser System
RGB Series

Data Sheet

Overview

The RGB series free space output multi-wavelength lasers are ideal for applications that require three wavelengths. The laser emits up to three wavelengths from one aperture and with separate power monitors for each wavelength. The RGB series can provide various kinds of colors, such as red, orange, yellow, green, indigo, blue, and purple. The RGB series is widely used for laser scientific research, medical treatment, OEM field and multimedia entertainment.

Features

- Three wavelengths combined into one output
- CW operating mode
- Optical output power 50mW to 1000mW
- Ultra-compact design

Applications

- Scientific research
- Medical treatment
- OEM field
- Multimedia entertainment

RGB Series Specifications

Parameter	RGB405G473	RGB635G473	RGB637G447	RGB640G405	RGB655G473	RGB671G473
Wavelength	Violet at 405nm, Blue at 473nm, Green at 532nm	Red at 635nm, Green at 532nm, Blue at 473nm	Red at 637nm, Green at 532nm, Blue at 447nm	Red at 640nm, Green at 532nm, Violet at 405nm	Red at 655nm, Green at 532nm, Blue at 473nm	Red at 671nm, Green at 532nm, Blue at 473nm
Total output power	>50mW, >100mW, >200mW, >300mW	>100mW, >200mW, >300mW, >500mW	>50mW, >100mW, >200mW, >300mW	>50mW, >100mW, >200mW, >300mW	>100mW, >200mW, >300mW, >500mW, >800mW, >1000mW	>50mW, >100mW, >200mW, >300mW
Transverse mode	Near TEM_{00}/TEM_{00}/ TEM_{00}	Near TEM_{00}/TEM_{00}/ TEM_{00}	Near TEM_{00}/TEM_{00}/ Near TEM_{00}	Near TEM_{00}/TEM_{00}/ Near TEM_{00}	Multimode/TEM_{00}/ TEM_{00}	TEM_{00}/TEM_{00}/ TEM_{00}
Operating mode	CW					
Power stability (rms, over 4 hours)	<5%, <3%, ,2%	<5%, <3%, ,2%	<5%, <3%, ,2%	<5%, <3%, ,2%	<5%, <3%, ,2%	<5%, <3%, ,2%
Beam diameter at aperture ($1/e^2$)	~2.5 mm	~3.0 mm	~3.0 mm	~3.0 mm	<5x8 mm	<3.0 mm
Beam divergence, full angle	<1.5 mrad	<1.5 mrad	<1.5 mrad	<1.5 mrad	<3.0 mrad	<1.5 mrad
Warm-up time	<10 min					
Operating temperature	10-35°C					
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz					
Expected lifetime	10,000 hours					
Warranty period	10 months					

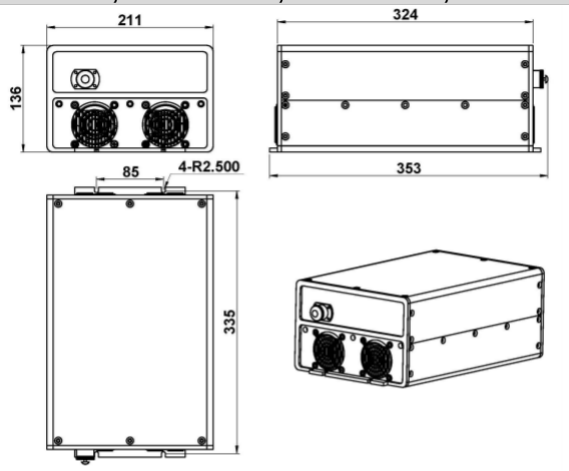
Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- The combination of red, green, and blue laser can generate multi-colors, such as red, orange, yellow, green, indigo, blue, purple, etc.

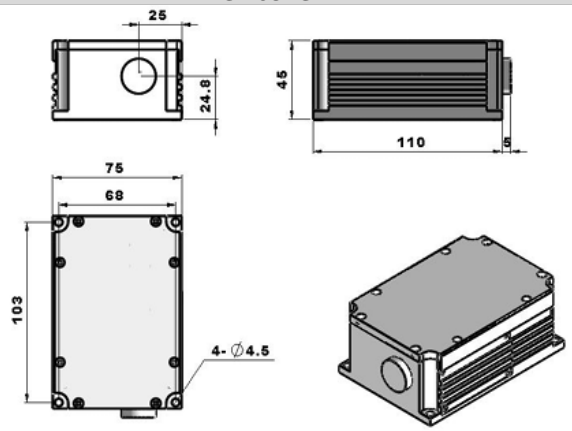
RGB Series Laser Head Dimensions

Unit: mm

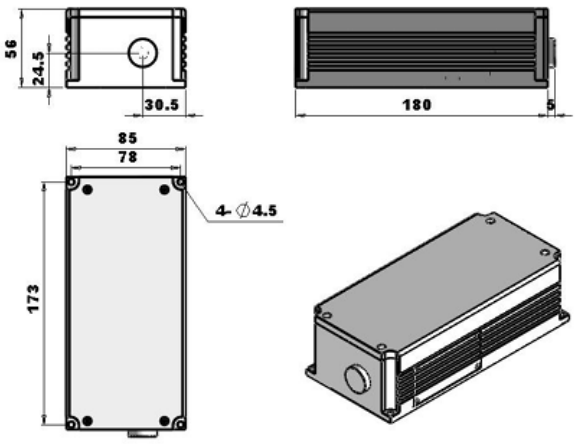
RGB405G473, RGB635G473, RGB655G473, RGB671G473



RGB637G447



RGB640G405

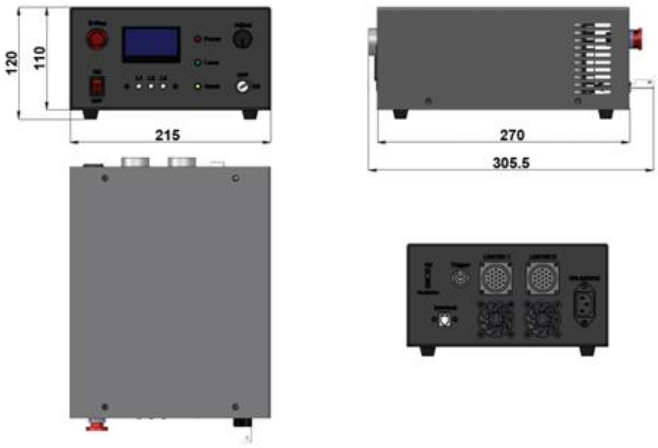


Parameter	RGB405G473, RGB635G473, RGB655G473, RGB671G473	RGB637G447	RGB640G405
Dimensions	353(L)×211(W) ×136(H) mm^3	115(L)×75(W) ×45(H) mm^3	185(L)×85(W) ×56(H) mm^3
Weight	13.0 kg	1.2 kg	1.5 kg

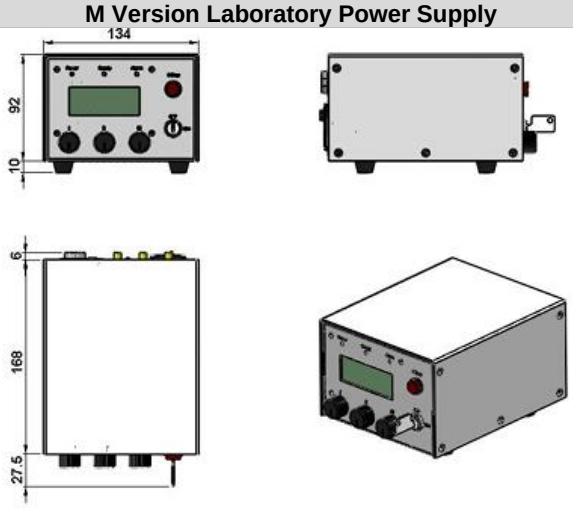
RGB Series Power Supply Dimensions

Unit: mm

RGB Laboratory Power Supply



M Version Laboratory Power Supply



Parameter	RGB Laboratory Power Supply (RGB405G473, RGB635G473, RGB655G473, RGB671G473)	M Version Laboratory Power Supply (RGB637G447, RGB640G405)
Dimensions	305.5(L) ×215(W) ×120(H) mm^3	201.5(L) ×134(W) ×102(H) mm^3
Weight	5.0 kg	1.2 kg
Input voltage	100-240VAC	100-240VAC

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration RGB[1][2][3][4][5]					
RGB = Laser Model Series	**[1] = Wavelength**	**[2] = Output Power**	**[3] = Power Supply**	**[4] = Power Stability**	**[5] = Modulation**
		50= >50mW 100= >100mW 200= >200mW … 1W= >1000mW	R3= RGB Laboratory Power Supply J= M Version Laboratory Power Supply	A= <5% E= <3% 2= <2%	0=None T1=TTL 1Hz-1kHz T2=TTL 1kHz-10kHz T3=TTL 10kHz-30kHz A1=Analog 1Hz-1kHz A2=Analog 1kHz-10kHz A3=Analog 10kHz-30kHz

Note: The above specifications are subject to change without notice.