机器视觉

高功率白光光源

High-power white light source



该产品为高功率RGB激光模块，可以输出高功率的RGB准直激光，最高可达350W光功率。可支持高速调制，且内置了大功率TEC和微流道水冷板散热系统；产品IP68级别密封，防尘、防雾防结露，且无振动器件，使用环境不受约束。

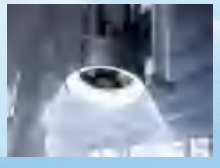
This product is a high-power RGB laser module capable of emitting a high-power, collimated RGB laser beam with an optical power of up to 350 W. It supports high-speed modulation and integrates a high-power TEC (thermoelectric cooler) along with a microchannel water-cooled plate for efficient thermal management. With an IP68-rated hermetic seal, the module is dust-proof, fog-proof, and condensation-resistant. Additionally, it contains no vibrating components, making it suitable for operation in virtually any environment.

产品特点

- RGB纯激光光源；
  RGB pure laser light source;
- 20000小时内光衰减低于30%，持续稳定输出；
  Less than 30% light attenuation within 20,000 hours for continuous and stable output;
- 内置大功率TEC和微流道水冷板散热系统；
  Built-in high-power TEC and microchannel water-cooled plate cooling system;
- 无运动器件，可用于高振动场景；
  No moving parts, suitable for high-vibration scenarios;
- 产品IP68级别密封，防尘、防结露，使用环境不受约束。
  IP68-rated sealed design, dust-proof and anti-condensation, with unrestricted operating environment.

应用场景

机械视觉检测补光
Machine Vision
Fill Lighting



高距离探照
High-Range
Searchlight



激光投影光源
Laser Projection
Source



产品参数

产品型号 Model	LTH-RGB-S175	LTH-RGB-S350
波长 Wavelength	R:635-641(Typ.639&643&647)nm	
	G:519-531(Typ.525)nm	
	B:459-471(Typ.465)nm	
光功率 Optical Power	175W窗口镜输出@25℃	350W窗口镜输出@25℃
	R:≥70W	R:≥140W
	G:≥41W	G:≥82W
	B:≥65W	B:≥130W
电功耗 Power Consumption	900W	1800W
驱动 Drive	R 60.5V 3A	
	G 61.5V 1.9A(共两路)	
	B 56V 3A	
体积 Dimensions	161.5*143*123mm	
重量 Weight	3kg	2.2kg
工作环境温度 Operating Temperature	-20℃ ~ +50℃	
运行湿度（无冷凝） Operating Humidity	10% ~ 85%	
适配镜头 Compatible Lens	输出光斑直径 6mm，发散角±28度，均匀白光照明 Output spot diameter 6 mm, divergence angle ±28°, uniform white light illumination	