

Optical Fly-eye Lens Matrix Module

MATGOBO600

The MATGOBO600 Series LED Matrix Modules feature a groundbreaking condenser optics design, utilizing a patented multi-layer optical fly-eye lens matrix, which focuses the rays from the LED matrix into a smaller area in space, offering high luminous density and brightness. The LED matrix supports the usage of up to 61 high-power LED chips. Through a simple way of installation, the condenser optics of the MATGOBO600 Series can be quickly assembled with the corresponding LED matrix to form an LED matrix module that is high-power and equipped with dust protection. This module boasts ease of use, maintenance, and upgradability.

The MATGOBO600 Series LED Matrix Modules are ideal for a wide range of lighting applications, including LED beam lights, outdoor searchlights, LED moving head hybrid lights, follow spotlights, gobo projection lights, and other speciality lighting needs. Additionally, optical customizations can be made to fit infrared or ultraviolet light sources to meet related industrial applications.

MATGOBO600 Series, Condenser Lens Assembly



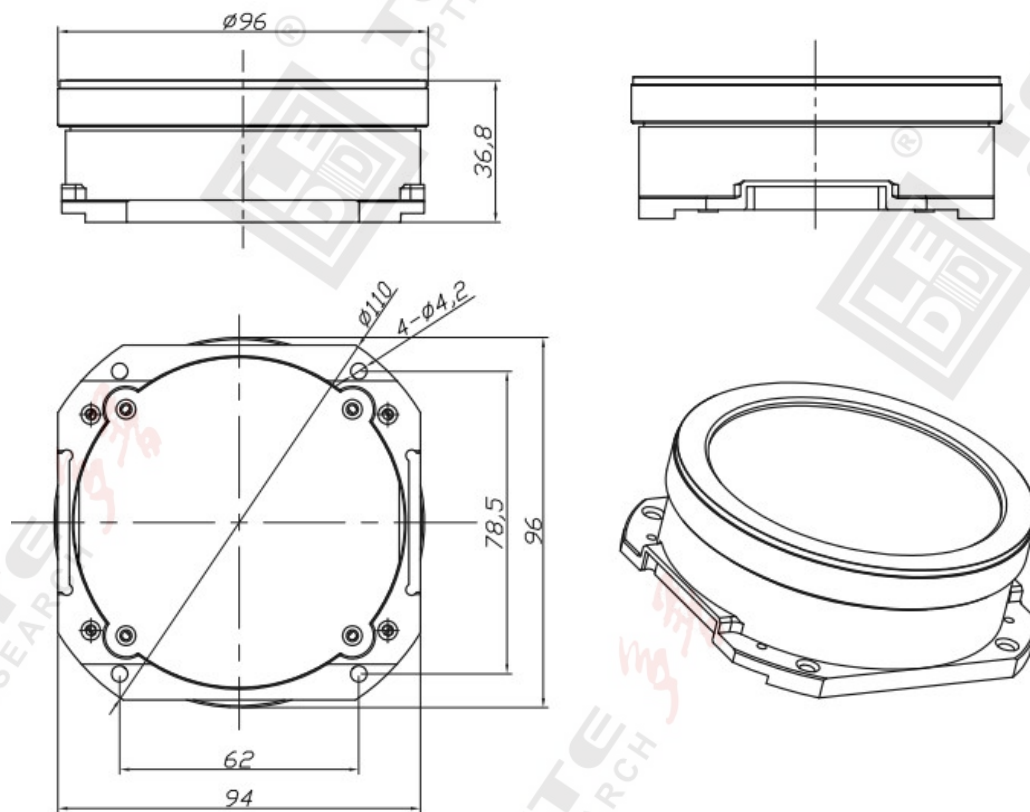
(MATGOBO600C/CPH/C-RY/CPH-RY)



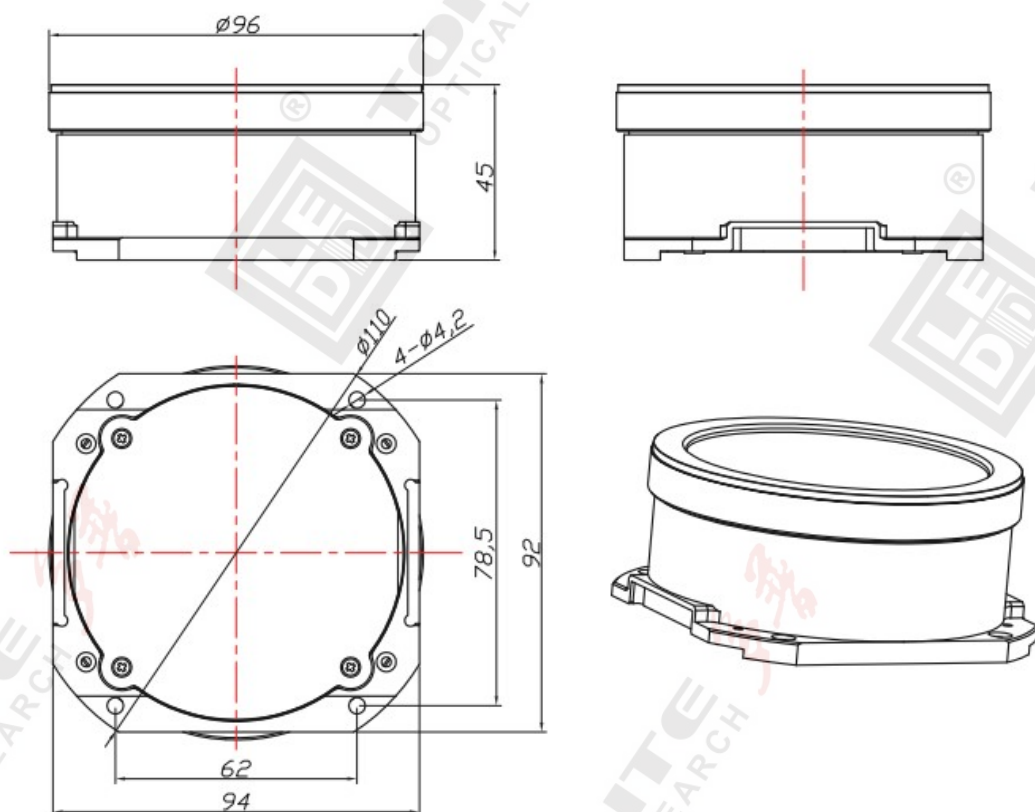
(MATGOBO600P/CP)

- LED required: the quantity is 61, outer packaging size ≤ 5050
- Light emission size: $\Phi 78\text{mm}$
- Focal length(F): $70\sim 72\text{mm}$, refer to model selection list for details
- Focal spot diameter (G): $\Phi 11\sim 28\text{mm}$, depending on the LES of LED in use, refer to model selection list for details
- Beam angle of light pattern: 58-degree

- Mechanical dimension:

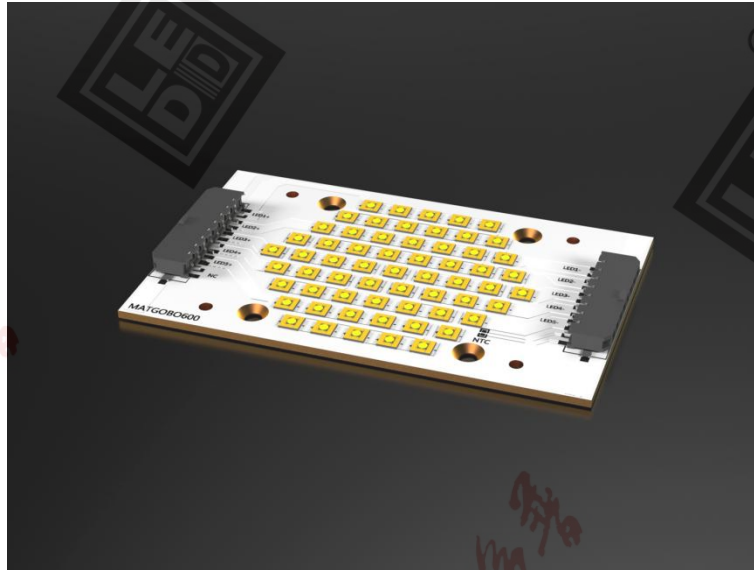


(Mechanical dimension of the models of MATGOBO600C / C-RY / CPH / CPH-RY)



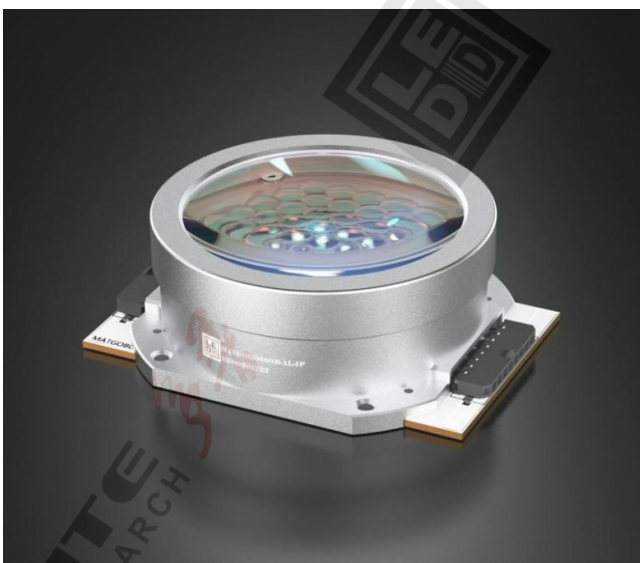
(Mechanical dimension of the models of MATGOBO600P / CP)

LED Matrix



- LED quantity: 61
- Outer packaging size: 5050, or smaller
- Total power: 600~2,440W, depending on the LED in use, single LED power x quantity
- LED matrix PCB layout: available

MATGOBO600 Series LED Matrix Module

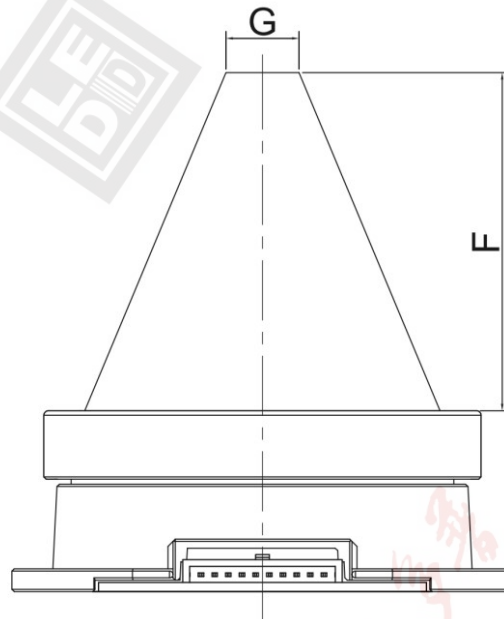


(MATGOBO600C/CPH/C-RY/CPH-RY)



(MATGOBO600P/CP)

- Light pattern: different MATGOBO600 models have their own G and F values, please refer to the model selection list



- Models and Tests: When testing, only the same LED is used as a benchmark reference.

Different LED test data may vary, please refer to the actual situation.

Model No.	LED	LED Qty	Drive Current	Power	Luminous flux	G	F	Angle
MATGOBO600C	5050-20W	61	6.0A×5	1,300W	90,000 lm	26mm	70±2mm	58°
MATGOBO600C-RY						26mm	70±2mm	58°
MATGOBO600CP						28mm	72±2mm	58°
MATGOBO600CPH					100,000 lm	26mm	70±2mm	58°
MATGOBO600CPH-RY						26mm	70±2mm	58°
MATGOBO600P						28mm	72±2mm	58°

Beam test:

- Model No.:MATGOBO600CPH, Test dedicated collimation optical system: IMMBEAM224230
- Throw distance: 10 m, Beam angle: 4.5, Illumination: 85,000 lx

Model selection description:

- MATGOBO600C/C-RY/CPH/CPH-RY, these four are high-brightness modules, characterized by providing high illuminance while ensuring a certain level of uniformity.
- MATGOBO600P/CP are two uniformity modules that offer higher uniformity and also take into account a certain degree of color mixing.

Special Note:

The test data provided in the aforementioned lists are for reference only. Specific performance data may vary depending on factors such as the chosen LED specifications, the manufacturing process of the LED matrix board, the cooling system, and the overall assembly precision. Therefore, please refer to actual conditions for accurate performance figures.

Usage tips:

In the same optical system, if you aim to achieve a higher luminous flux output, you can try increasing the diameter size of G

recommended in the above selection lists, for example, by adding 2mm. This will enhance the system's light output but may result in a slight reduction in uniformity.