

Optical Fly-eye Lens Matrix Module

MATGOBO40

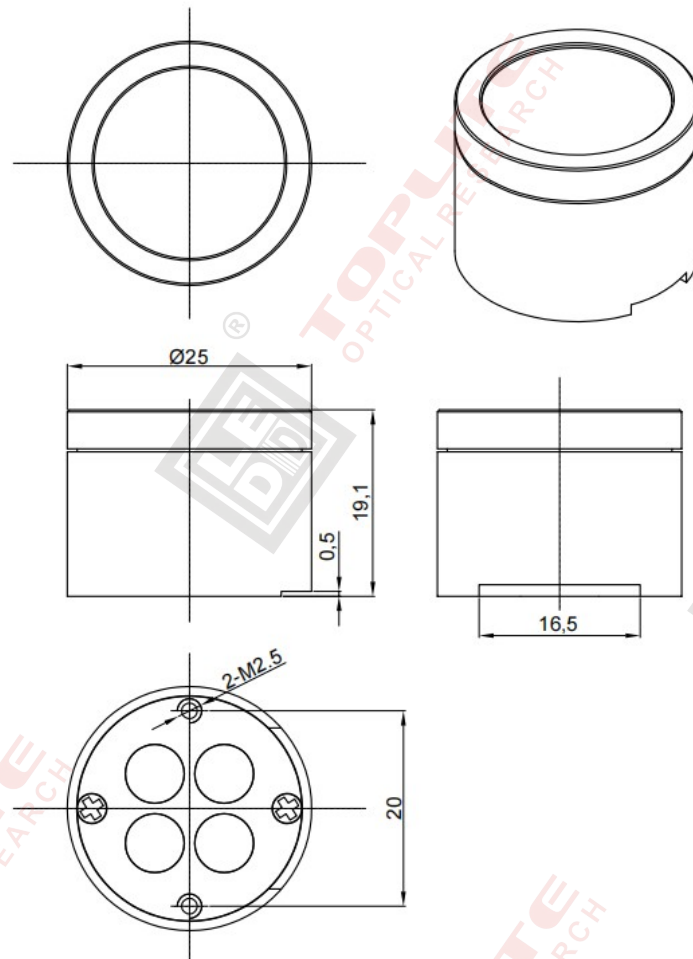
The MATGOBO40 Series LED Matrix Modules feature a groundbreaking condenser optics design, utilizing a patented multi-layer optical fly-eye lens matrix, which focuses the rays from the LED matrix into a smaller area in space, offering high luminous density and brightness. The LED matrix supports the usage of up to 4 high-power LED chips. Through a simple way of installation, the condenser optics of the MATGOBO40 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.

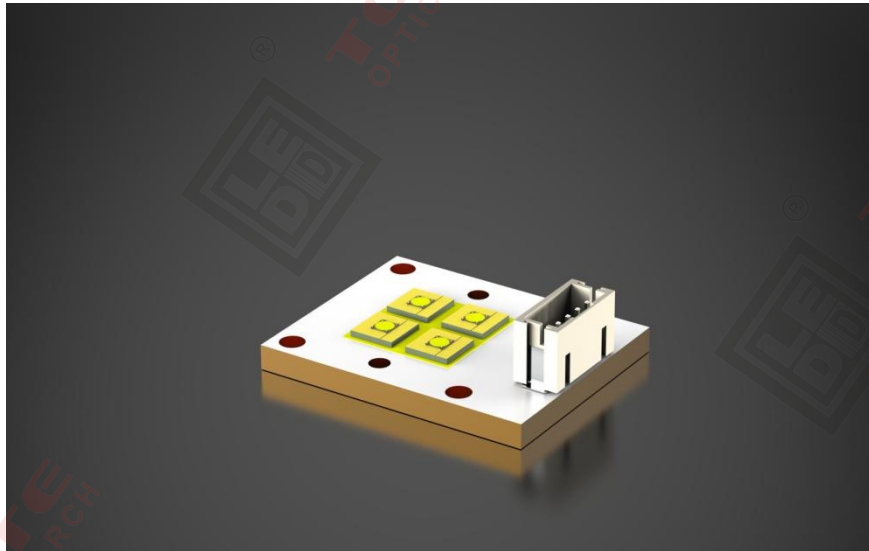
The MATGOBO40 Series LED Matrix Modules are ideal for a wide range of lighting applications, including LED beam lights, outdoor searchlights, LED moving head hybrid lights, follow spotlights, gobo projection lights, and other speciality lighting needs. Additionally, optical customizations can be made to fit infrared or ultraviolet light sources to meet related industrial applications.

MATGOBO40 Series, Condenser Lens Assembly



- LED Requirements: quantity: ≤ 4 LEDs, supported external package sizes: 5050 (or other custom dimensions)
- Optical Output Surface Dimensions: $\Phi 19.5$ mm
- Focal Length (F): 9~13 mm, please refer to the model selection list.
- Focal Point (G): $\phi 2 \sim 8$ mm, please refer to the model selection list. Shape & value will vary depending on the LES of the LED chip.
- Beam Angle: 60°
- External dimension: $\phi 25\text{mm} \times 19.1\text{mm}$, refer to the diagram below for details.

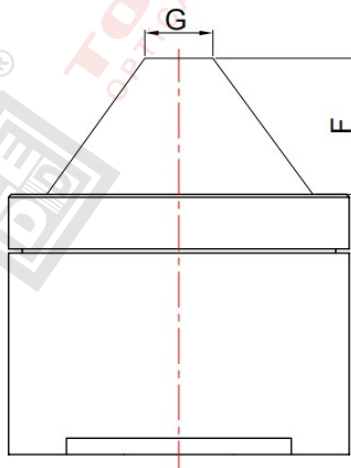


LED Matrix Light Source Board

- LED Qty: 4 pcs
- Outer Package size: 5050
- Matrix Power: $\leq 80W$, specifically calculated as the power of a single LED chip multiplied by the quantity
- LED Layout Diagram: Provided

LED Matrix Module

- Light pattern: For specific F and G values, please refer to the model selection list.



- Test Parameters are as follows: The testing uses only one specific LED model as the reference for measurement. Please note that variations in test data may occur when different LED models are used:

Model No.	LED	LED Qty	Driving Current	Power	Luminous flux	G (mm)	F (mm)	Beam angle of light pattern (°)
MATGOB040	5050-20W	4	5A×1	80W	6200 lm	6 mm	12±1 mm	60°
MATGOB040	5050-10W	4	3A×1	40W	2000 lm	3 mm	12±1 mm	60°
Illumination Test ①: MATGOB040 (5050-20W) +IMMBEAM224230,320000lx @ 5m, Beam Angle 1° MATGOB040 (5050-10W) +IMMBEAM224230,400000lx @ 5m, Beam Angle 0.5°								
Illumination Test ②: MATGOB040 (5050-20W) +IMMBEAM180180,200000lx @ 5m, Beam Angle 1.5° MATGOB040 (5050-10W) +IMMBEAM180180,250000lx @ 5m, Beam Angle 0.8°								
To achieve higher luminous flux, increase the recommended aperture (G) by up to 20%. E.g., if G = 6mm, increase to 7.2mm (6 × 1.2). This yields higher optical output with a slight trade-off in beam uniformity.								

Special Note:

The test data provided in the aforementioned lists are for reference only. The specific data are related to factors such as the selected LED chips, packaging process, accuracy of SMD placement positions, heat dissipation, and assembly precision. Please refer to the actual situation.