

Specification

Prepared	Checked	Approved	Accepted	Confirmed	Approved

- UL
- CE
- RoHS
- 1818 SMD
- 1 LED
- Injection Molding Equipment
- DC 12V
- IP 65
- 5 Years

RISHANG•High-end LED Signage Lighting

Model: ○ MG21EB

1pc 1818 SMD LED, 64*43*24.5mm, high-pressure injection series with lens , white exterior casing and radiator, 12Vdc constant current, 2.7W LED module.

Picture:



Features:

- Flame-retardant engineering plastics as housing guarantees high reliability;
- 1818 SMD LED beads with high luminous efficacy;
- Constant current driver; stable performance, long lifetime, good brightness uniformity;
- Can be cut between every single module;
- Certification: CE、 RoHS、 UL.

Applications:

- Suitable for 7~20cm [2.75~7.87in] depth single-sided light box and double-sided 8~40cm [3.14~15.74in] depth light box .

Warranty:

- 5 years or 22,000 hours, whichever comes first.

Optical and Electrical Parameters:

P/N	LED Color	CCT (K) WL (nm)	CRI	SDCM	Beam Angle (°)	Luminous Flux (lm)	Luminous Efficacy (lm/w)	Working voltage (V DC)	Working current (mA/piece)	Power (w/piece)
MG21EB	Pure white	7000	≥70	--	12*47	265	98	12	225	2.7

Others:

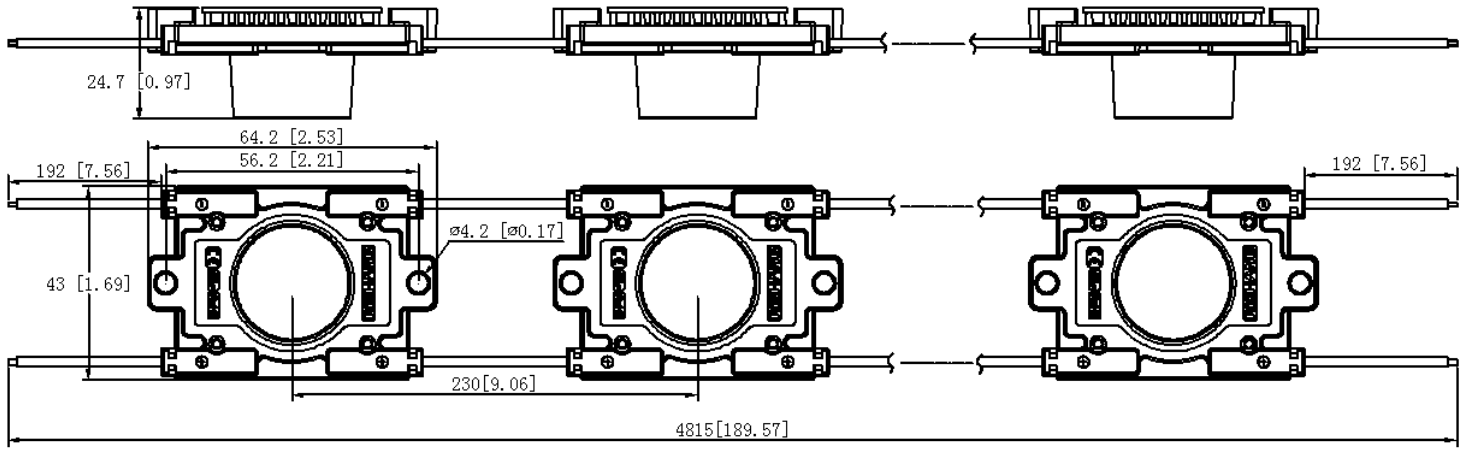
P/N	IP Grade	OperatingTemp		Storage Temp		Standard cascading qty (pcs)	Single-ended max. cascading qty (pcs)	Double-ended max. cascading qty (pcs)	Weight	
		(°C)	(°F)	(°C)	(°F)				(g/piece)	(lb/piece)
MG21EB	IP65	-25~+60	-13~+140	-25~+70	-13~+158	20	20	/	41	0.091

Notes:

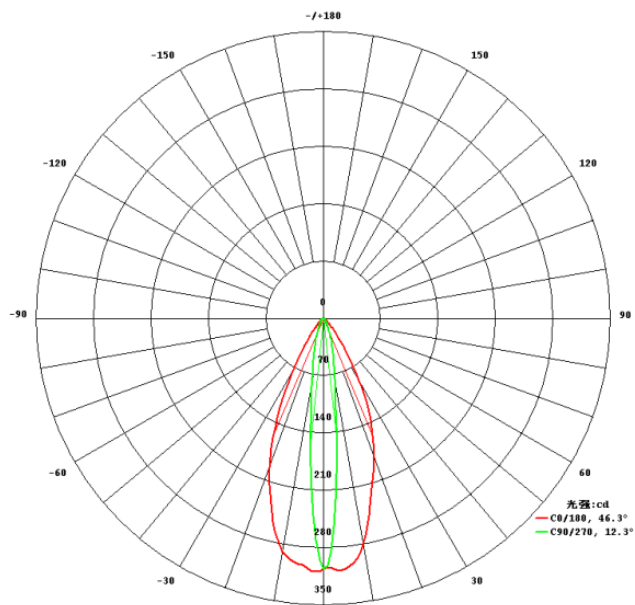
- (1) Testing environment temperature: 25±2°C[77±3.6°F];
- (2) Above data was collected from individual module randomly;
- (3) The actual data of each single product may differ from above typical data which are subject to change without prior notice;
- (4) This is high power module, which is not available in double-ended feed from power supply;
- (5) The above "--" represents that SDCM parameters do not need to be filled in.

Profile Drawings:

Unit: mm[inch]



Light Distribution:



Layout Data:

Light box thickness (mm/in) Modules distance (mm/in) illumination value (lux)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	503	459	415	371	335	1.5*2M[4.92*6.56ft]Double-sided light box,1.5M[4.92ft] Kumite glow
110[4.33]	332	330	271	249	218	
150[5.91]	223	202	187	168	154	
190[7.48]	189	175	160	146	134	
230[9.06]	152	140	125	110	102	

Note:Using 3M-P2 light cloth;light transmittance 40%.

Light box thickness (mm/in) Modules distance (mm/in) illumination value (lux)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	397	362	317	288	263	1.5*2M[4.92*6.56ft]Double-sided light box,2M[6.56ft] Kumite glow
110[4.33]	264	228	224	206	182	
150[5.91]	183	172	153	136	129	
190[7.48]	144	131	118	111	102	
230[9.06]	116	108	96	92	85	

Note:Usina 3M-P2 light cloth:light transmittance 40%.

Light box thickness (mm/in) Modules distance (mm/in) illumination value (lux)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	924	808	723	663	608	1.5*2M[4.92*6.56ft]Double-sided light box,Rally around the light
110[4.33]	598	511	491	454	413	
150[5.91]	408	364	339	311	290	
190[7.48]	335	309	264	256	242	
230[9.06]	277	253	230	204	188	

Note:Using 3M-P2 light cloth;light transmittance 40%.

lighting pattern Modules distance (mm/in)	0.6M[1.96ft]Lighting up and down	0.9M[2.95ft]About lighting	Around the polishing	Remark
70[2.76]	920	577	1481	900*600*100mm [2.95*1.96*0.32ft] light box
110[4.33]	579	411	/	
150[5.91]	/	/	/	

Note: Using milky white acrylic;light transmittance 54%

lighting pattern Modules distance (mm/in)	0.8M[2.62ft]Lighting up and down	1M[3.28ft]About lighting	Around the polishing	Remark
110[4.33]	950	823	1828	1000*800*80mm [3.28*2.62*0.26ft] light box
150[5.91]	/	411	1216	
190[7.48]	/	/	957	
190	/	/	/	

Note: Using milky white acrylic;light transmittance 54% .

Light box thickness (mm/in) illumination value (lux) Modules distance (mm/in)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	1026	899	819	765	687	1.5*2M[4.92*6.56ft]Double-sided light box,1.5M[4.92ft] Kumite glow
110[4.33]	686	605	547	509	457	
150[5.91]	442	431	391	350	325	
190[7.48]	389	342	317	290	281	
230[9.06]	299	277	258	236	209	

Note:Using 3M-P2 light cloth;light transmittance 40%.

Light box thickness (mm/in) illumination value (lux) Modules distance (mm/in)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	771	716	648	593	540	1.5*2M[4.92*6.56ft]Double-sided light box,2M[6.56ft] Kumite glow
110[4.33]	537	506	458	416	395	
150[5.91]	364	329	311	292	266	
190[7.48]	322	278	253	229	214	
230[9.06]	258	230	219	211	182	

Note:Using 3M-P2 light cloth;light transmittance 40%.

Light box thickness (mm/in) illumination value (lux) Modules distance (mm/in)	140[5.51]	180[7.09]	220[8.66]	260[10.24]	300[11.81]	Remark
70[2.76]	1814	1662	1481	1360	1226	1.5*2M[4.92*6.56ft]Double-sided light box,Rally around the light
110[4.33]	1231	1122	1031	947	866	
150[5.91]	809	775	707	649	615	
190[7.48]	712	636	578	535	497	
230[9.06]	568	513	471	450	400	

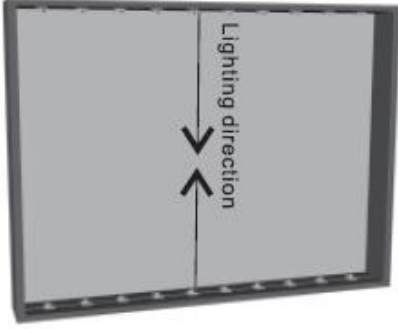
Note:Using 3M-P2 light cloth;light transmittance 40%.

lighting pattern Modules distance (mm/in)	0.6M[1.96ft]Lighting up and down	0.9M[2.95ft>About lighting	Around the polishing	Remark
70[2.76]	1991	1117	3129	900*600*100mm [2.95*1.96*0.32ft] light box
110[4.33]	/	/	2111	
150[5.91]	/	/	1784	

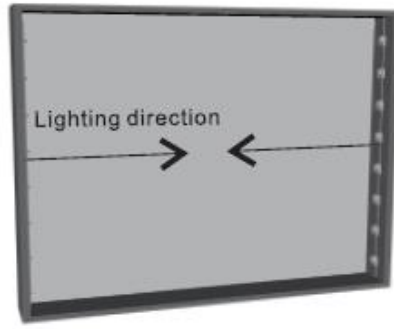
Note: using miky white acrylic; light transmittance 54%

lighting pattern Modules distance (mm/in)	0.8M[2.62ft]Lighting up and down	1M[3.28ft>About lighting	Around the polishing	Remark
70[2.76]	2124	1523	3584	1000*800*80mm [3.28*2.62*0.26ft] light box
110[4.33]	/	/	2644	
150[5.91]	/	/	/	
190[7.48]	/	/	/	

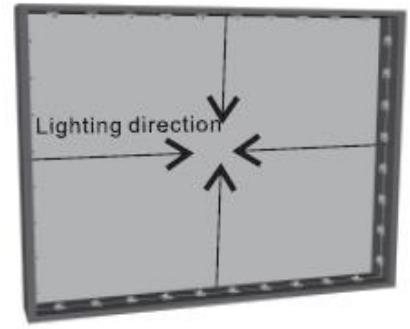
Note: using miky white acrylic; light transmittance 54%



Lighting from top and bottom



Lighting from left and right



Lighting from four directions

Remark:

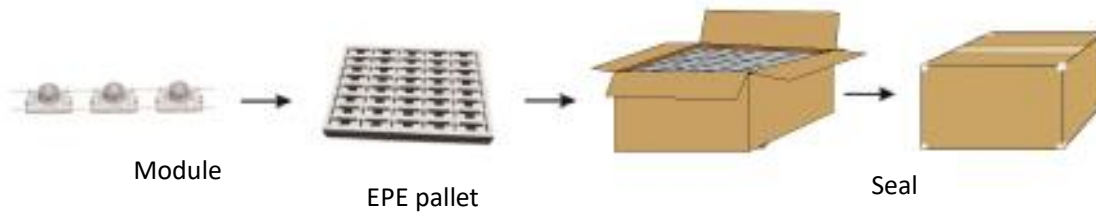
- (1) Above illumination is average illumination when surface is uniform;
- (2) All above layout data are tested from product with 6000K color temperature;
- (3) "f" means uneven lighting;
- (4) All above data are for reference.

Packaging Information:

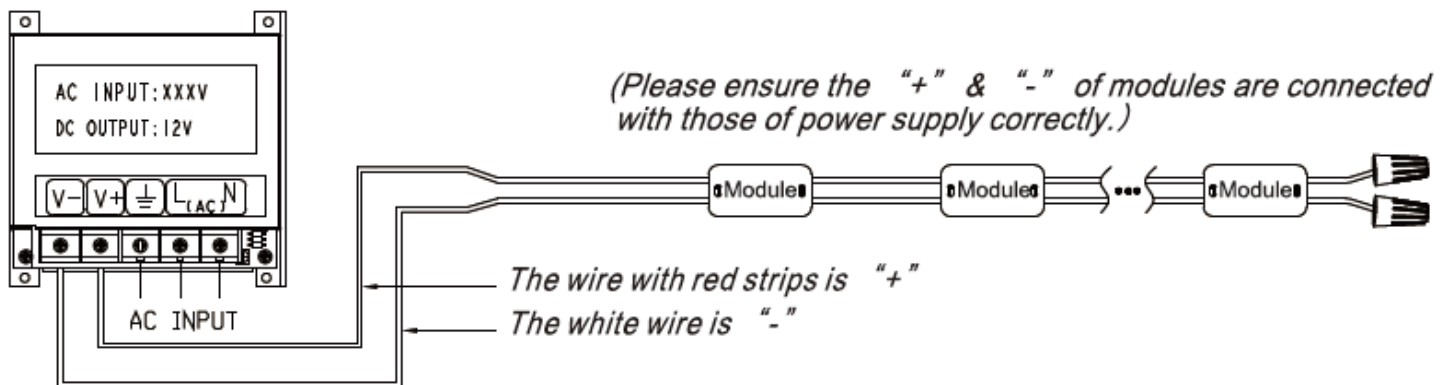
P/N	Qty (PCS/EPE)	Qty (EPE/carton)	Total Qty (PCS)	Total weight		Outer carton size					
						length		width		height	
				(Kg)	(lb)	(mm)	(inch)	(mm)	(inch)	(mm)	(inch)
MG21EB	40	6	240	10.3	22.11	495	19.48	345	13.58	345	13.58

Notes: the actual packed quantity and weight might differ from the above data in other packaging ways. Thus please refer to the actual product for detailed information.

Packaging Diagram:

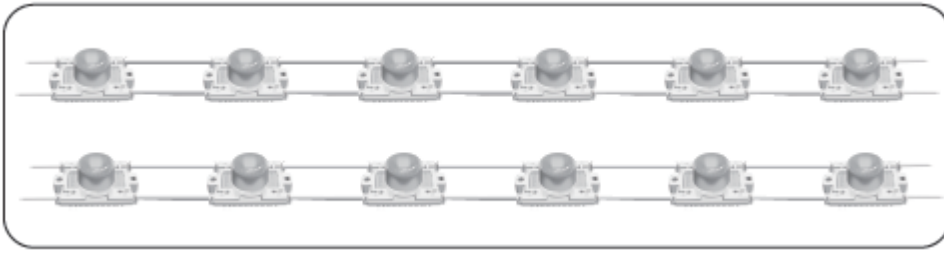


Connection Instruction:



Parts & Tools:

◎ **Product Spare Parts**



Modules

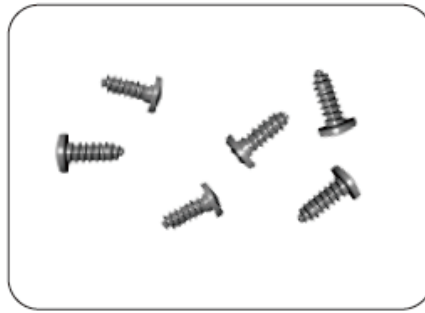


Wire connectors

◎ **Self-provided Tools**

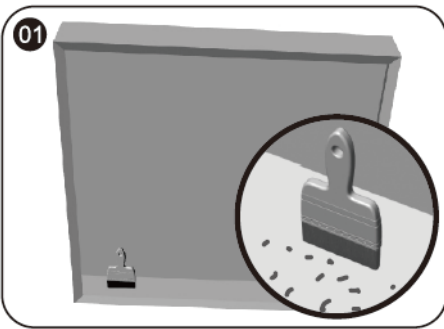


Cutting nipper, Electrical Drill & Drilling bit

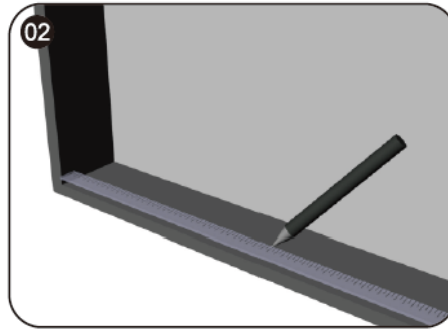


Self-tapping Screws (ST3.5)

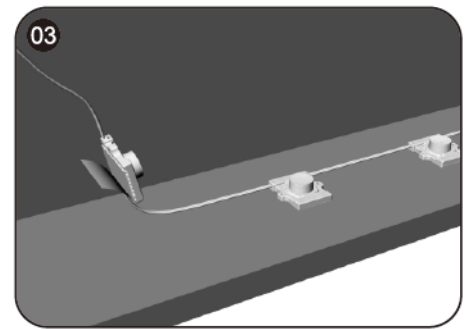
Installation Steps:



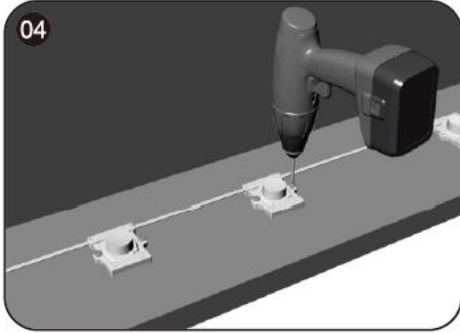
◎ Clean the mounting surface



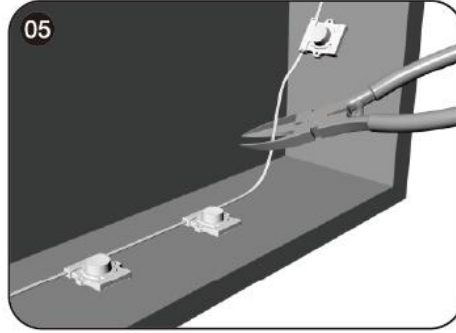
◎ Mark the installing place for modules and determine the needed quantity, remain centered installation.



◎ Peel off the release paper of double-sided adhesive tapes, then, stick modules on the installing surface for preliminary mounting.

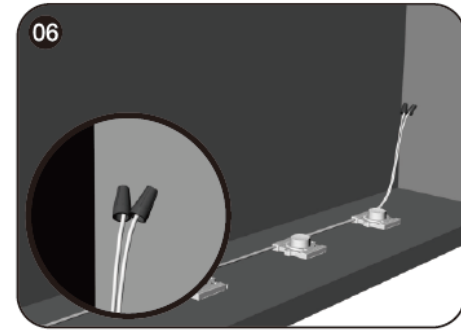


⊙ Adjust the modules to the best position, press the double-sided tape tightly and then fixed by screws.

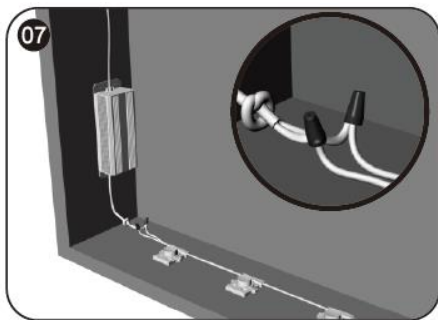


⊙ Cut off the modules to the desired qty, and peel off the insulation skin of wires about 10mm

△Note: Please cut from the middle; When cut wires of module MG01BB, cut every three modules (cutting along scissors sign



⊙ When the wires exposed in the last module, please peel off the insulation skin of wires about 10mm, then, connect it by terminals according to the wire's anode & cathode, and please dispose the joints with waterproof and anti-corrosion.



⊙ When connect to external power supply, Please ensure that the “+” & “-” of the wires of modules are connected with those of power supply correctly, and dispose with waterproof, insulation, anti- circuit and anti-corrosionprotection.

Troubleshooting:

Malfunctions	Possible Causes	Solutions
All LEDs don't work	1. The power supply did not connect to power grid.	Power on
	2. No electricity due to short-circuit of external power supply	Remove the malfunction caused by short-circuit, power on again
	3. The wires of module connect to power supply output reversely.	Check the connecting and ensure the wires are connected correctly.
Part of LEDs don't work	1. Part of power supplies do not have output.	Check the power supply system.
	2. Part of module wires have malfunction.	
	3. Particular module connected reversely.	Correct connection

RISHANG•High-end LED Signage Lighting

Brightness of LEDs is weak or uneven	1. Overloaded power supply	Replace it with higher power supply
	2. The power loss of power circuit is huge or the power loss of each circuit existing big difference	Ensure working voltage of modules is within $\pm 5\%V$ of rated voltage. 1. Shorten the length of wires between the first module and power supply or replaced with wires with bigger diameter; 2. Ensure the cascading qty of string is less than or equal to the allowed maximum cascading qty, and each module cascading qty is well-balanced.
	3. Exceed in qty of modules in series.	Lessen the cascading qty for module and ensure the qty for each electrical circuit is within the maximum cascading qty.
LEDs are blinking	1. Poor contacted in the joints.	Find out and tackle malfunction immediately.
	2. Failures in power supply.	Replace power supply.

Declaration:

- ⊙ If the external flexible cable of light box is damaged, please replace it by its manufacturer or its service agent or qualified person to avoid a hazard.
- ⊙ The specific installation and cautions please refer to the user manual.
- ⊙ The given data in this specification is based on our standard product. There may be existed slight difference compared with actual products.
- ⊙ All Illustrations in this specification are for reference only.
- ⊙ This product is subject to change or modify without prior notice.
- ⊙ RISHANG OPTOELECTRONICS CO., LTD reserves the right of final explanation for this specification.

<End>

Rishang Optoelectronics Co., Ltd(stock code: 002654)

Add: Block 2, Hongfa jiateli High-Tech. Park Tangtou Ave., Shiyan, Bao'an Shenzhen Guang Dong, 518108, China

Tell: +86-755-36988588 E-mail: info@ledlamps.com.cn

Website: www.ledlamps.com.cn



Website



Wechat Accounts

