

Specification

Product Name: **Networking controller**

Product Model: **MC116D RC**

Versions	Release/ change Date	Reason	Publishing
V1.0	2023.07.25		James.Guo
V1.1	2023.08.14	Modify the Function description and the description of the remote control	James.Guo

【Product Features】

- Grouping networking by 2.4G wireless, no need pairing or gateway.
- Patented di-pole microwave antenna, no false trigger when installed below metal LED tray.
- Super-narrow microwave sensor head, suitable to be fixed in slim LED fixtures.
- All sensor parameters can be set by remote control.
- Output 0-10V dim or PWM dim, 2-step/3-step dim function.
- 6m Max. mounting height.



【Parameter】

Input				
Rated voltage	12±1VDC			
Working current	55±5mA			
Ripple voltage	< 100mVp-p			
Output				
Output signal	<input type="radio"/> 0-10V Dimming Signal		<input type="radio"/> PWM Dimming Signal	
Sensing parameters				
Working frequency	5.8GHz ±75MHz, ISM band			
Transmit power	1mW Max.			
Daylight priority	ON	15Lux (LOW)	50Lux (MED)	Disable (HIGH)
	OFF	100Lux	150Lux	
Stand-by DIM Level	< 50mA (Non-constant source) 10%(1.4-1.6V) 30%(2.9-3.3V)			
Detection range (radius)	Ceiling Mounting(height: 3m): 0.3m/s ≥4m, 1m/s ≥2.5m Wall Mounting(height: 2m): 0.3m/s ≥8m, 1m/s ≥4m			
Installation height	3m (6m Max)			
3db beam angle	80 °@XZ plane			
	96 °@YZ plane			
Wireless Module				
Operating Frequency	2.4GHz			
Transmitting Power	6dBm			
Transmitting Distance	15m MAX(Point-to-point open area transmission distance)			
Environment				
Working temperature	Built-in: -25~60℃			
Storage temperature	-40℃~80℃, humidity ≤85% (non-condensing)			
Certification Standards				
Certified	CE			
Environmental requirements	Comply with RoHS 2.0 , Reach requirements			
Degree of protection	IP20			

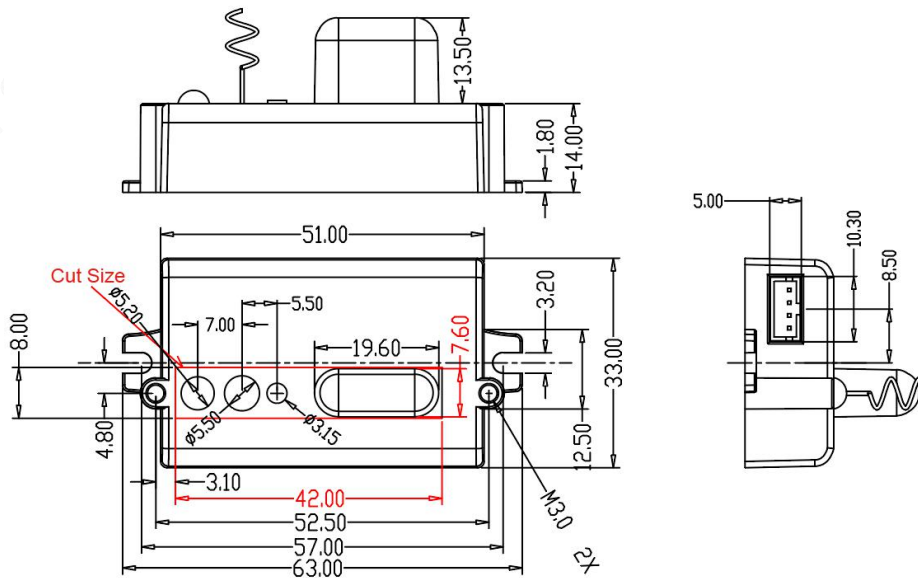
Other	
Wiring	3pin 2.0mm terminal
Installation requirements	built-in installation
Packaging requirements	Clapboard + paper carton(K=A)
Net weight	16.5±3g
Life	5 Years Warranty@Ta

【Function description】

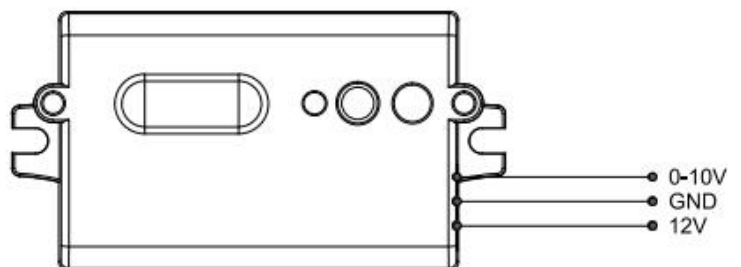
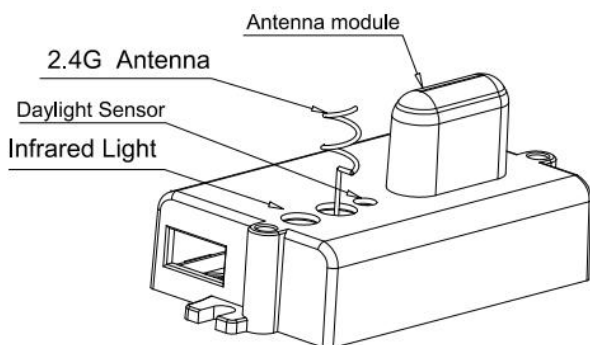
☑ON-OFF function	Stand-by Period be set to “0s”
☑2-step dimming	Stand-by Period be set to “+∞”, Daylight sensor be set to “High”
☑3-step dimming	Stand-by Period be set to “5min/10min”
○Daylight harvesting	N/A
☑Daylight priority	Stand-by Period be set to “+∞”, Daylight sensor be set to “LOW/MED”
☑Grouping	Remote group “1-8” and set Rx signal for sensor

【Diagram】

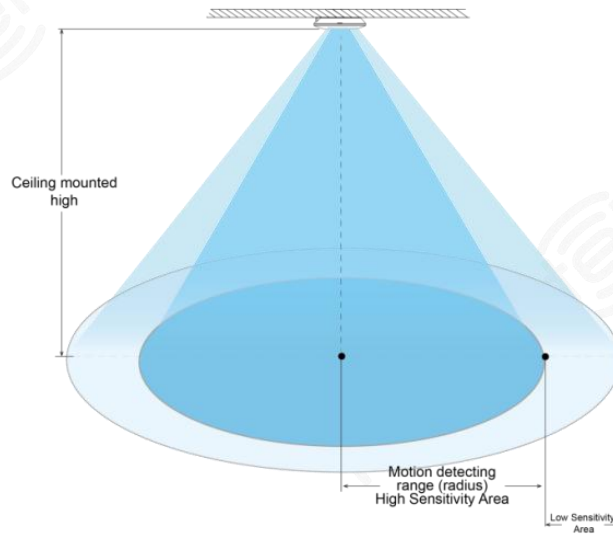
● Dimension



● Wiring, Function



● radiation diagram



【Remote Controller】



Instruction

Remote Control Setting	Button	Remarks
		Turn off wireless transmission
		Recover wireless transmission
		Long press the same channel No. to several lights for grouping. Lights flash 1 time means set successfully. Can build maximum 8 different groups. Short press the channel No., the lights in the same group will flash 3 time.
		Short press the channel No. , the lights in the same group will flash 3 time. And then short press the sync button to synchronize sensor parameters to all lights in the same group, including detection area, hold time, stand-by period, daylight sensor and stand-by dim level. After the synchronization is successful, the lights in the same group will flash 3 time.
		Receiving mode setting. Short Press 'Rx' and grouping button 1 to 8 within 3 sec, the sensor can receive several different signal from other groups, max. 4 groups. For example, suppose sensor A is set in group 1, if press 'Rx' and '2', it can receive the trigger from both group 1 and 2. Only press 'reset' can to cancel this mode.
		Short press this button to set the stand-by dim level, 10% or 30%.
		Short press 'ON/OFF' button to disable the sensor function, the light will work as normal LED light. The 'ON/OFF' button is with memory function after power recovery. Press 'sensor motion' button to recover the sensor function and device memories the last sensor programming.
		+/- to set the light at its full brightness and decrease by 2% each time pressing
		Long pressing for 3s to recover factory setting and clear groups. Detection Sensitivity: 100%, Hold time: 10s, Daylight sensor: disable, Stand-by period: 0s, stand-by dim level: 10%.
		Short press to select detection area, 25% is the shortest range. 100% is the maximum.
		Hold Time: 30s, 1min, 3min
		Stand-by Period: 5min, 10min, +∞
		Daylight sensor: 1. Stand-by period set to 5min or 10min. Enable daylight threshold mode. Light will turn on when ambient light level below the threshold value if with motion trigger. 2. Stand-by period set to +∞, daylight priority is enabled. Light will automatically turn ON/OFF according to ambient light level against setting below. 3. Press 'HIGH' button, Daylight sensor is disabled.

【Initialization】

When powering on for the first time, the sensor will turn the light on to 100% brightness, and the light will be turned off after 10 seconds. During initialization, movement signal will not be detected.

【Default setting】

Detection area: 100%; Hold Time: 10s; Stand-by Period: 0s; Daylight Sensor: Disable;
Stand-by Dim Level: 10%.

【Application Notice】

- The sensor should be installed by a professional electrician. Please cut off the power before installing, wiring etc.
- The detection distance is related to factors such as the moving speed of the moving object, the size of the moving object, the installation height, the installation angle, whether the installation environment is open, and the material of the reflector. The detection distance given in the specification is a typical value, which is 165cm/65kg tester, and it is tested in an open indoor environment
- When the microwave sensor is installed on the wall, the detection distance will be greatly increased compared with that installed on the ceiling. If you use the wall installation method, please reduce the sensitivity to use or contact our company to confirm the use settings. The light sensitivity threshold is in a sunny environment, no shadows, and ambient light diffuse reflection conditions. In different time periods, climates, and environments, the illuminance value detected by the light sensor may be different
- Sensor parameters may need to be reconfigured in different installation environments, please refer to the following instructions or contact the manufacturer
- This sensor is only for indoor use, outdoor wind and rain, and surrounding moving objects will cause false triggering
- The installation height of the sensor product cannot exceed 6 meters, and the optimal height is 3 meters; the distance between the two sensors should be greater than 3 meters
- When the sensor is installed in a metal lamp, on a metal reflective surface, or in a narrow closed environment, microwaves will be reflected multiple times and cause false triggering. Please reduce the sensor sensitivity or contact the manufacturer for technical support.
- Please make sure that there are no moving signals such as fans, DC motors, sewer pipes, air outlets, etc. around the sensor, otherwise the sensor may cause false triggering.
- Microwaves cannot penetrate metal, avoid installing in closed or semi-closed metal lamps, and there should be no metal or glass blocking the product
- Sensor with different 0-10V / PWM driver, LOW light effect may be different
- DC regulated power supply with stable output voltage and LOW ripple coefficient must be used. The ripple of the power supply should be less than 100mV ; the load current should be greater than 100 mA
- Product specifications and parameters may be optimized without prior notice
- For the new installation environment, it is recommended to test 5pcs samples before installation.