

LM57176

Microwave motion sensor

Specification

File status: ☐ Draft ☒ Published ☐ Pending	File name:	Product specification
	Version:	V1.0
	Editor:	
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Version history

Version	Editor	Participator	Valid from	Remark
V1.0	Niou		2019-06-08	

0 Amendment

1 Feature

- **LM57176** microwave module, which applies colasmart self-R&D CS3921 microwave chip, can effectively sense human and entity motion
- Light sensor is available when correspondent component is exter-connected
- IR remote is available when correspondent component is exter-connected ,and microwave motion sensor distance,hold time,lux threshold etc can be adjusted by IR remote
- Plate-antenna applied for the sake of max long-distance detection purpose
- RGB background mode available
- Working temperature be -20°C– 70°C



CS-CRD02-XX1

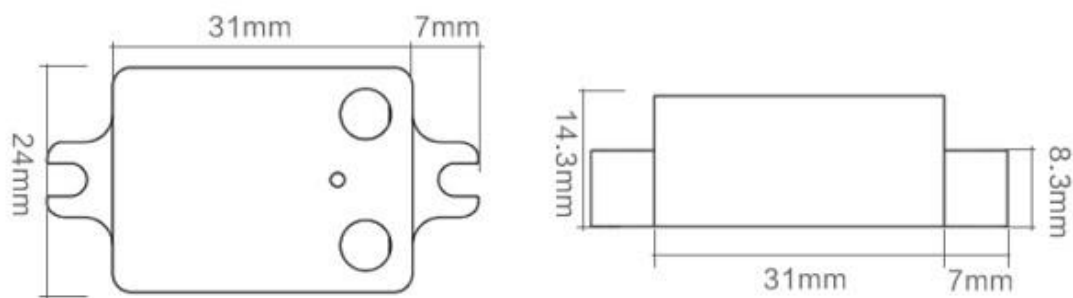
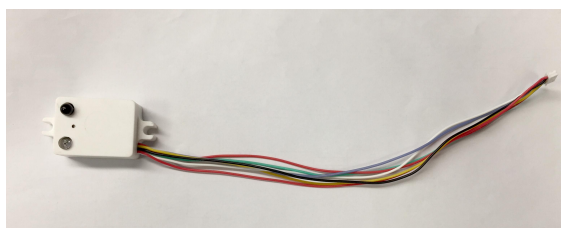
2 Application

- Lighting
- Security
- Smart home

3 Specification

Working voltage	DC 8-12V
Working current	20-25mA
Working temperature	-20°C - +70°C
Frequency	5734MHz - 5858MHz
Mounting height	3-6m standard height 3m
Sense distance	Very near/Near/Medium/Far
Lux threshold	OFF/50Lux
Hold time	1Min/5Min/10Min/30Min

4 Drawing



Outline Drawing



Terminal Sequence Diagram

Number	Pin	Definition
1	+	VCC
2	-	GND
3	W	PWM1 output
4	Y	PWM2 output
5	R	PWM3 output
6	G	PWM4 output
7	B	PWM5 output

Brightness level

Level	1 st level	2 nd level	3 th level	4 th level	5 th level	6 th level	7 th level	8 th level
Pwm %	10%	20%	30%	40%	50%	60%	70%	80%
Level	9 th level	10 th level	Min	Max				
Pwm %	90%	100%	10%	100%				

5.5 Color temperature adjust(based on brightness be 100%)

Level	1 st level	2 nd level	3 th level	4 th level	5 th level	6 th level	7 th level	8 th level	9 th level	10 th level
Warm white pwm %	100%	86%	71%	57%	43%	29%	14%	0%		
Cool white pwm %	0%	14%	29%	43%	57%	72%	86%	100%		

5.6 Hold time

Hold time level	1min	5min	10min	30min
Time to dim to stand-by brightness from current brightness(half of current brightness)	30s	4min	9min	29min
Time to dim to OFF from stand-by brightness(half of current brightness)	30s	1min	1min	1min

5.7 Sense distance

Distance level	Very near	Near	Medium	Far
Distance range	1 - 2	2 - 3.5	3.5 - 5	5 - 7

6 Remark

- Sense range will be different according to different install height and sense angle
- Application environment, entity motion velocity etc will effect module sense range ,so above sense range is only for your reference based on ideal circumstance
- Actual lux threshold is related to your light case material, our value is this specification is only for reference

FCC Information

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS OR CHANGE TO THIS EQUIPMENT. SUCH MODIFICATIONS OR CHANGE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

To satisfy FCC exterior labeling requirements, the following text must be placed on the exterior of the end product
"Contains Transmitter module FCC ID: WUI-LM57176"

The modular must be installed in the host that assign by

Company name: Winplus Co., Ltd.

Product/PMN: LED Ceiling light with ambiance glow

Model no./HVIN: LM57176

if other host types used would need further evaluation and possible C2PC if they are not significantly similar to the one tested.

IC Information

-English:

1. This device complies with Industry Canada RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with ISED RF radiation exposure limits set forth for an uncontrolled environment.

-French:

Le présent appareil est conforme aux CNR d'Industrie Canada applicable aux appareils radio

Exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

Cet appareil est conforme aux limites d'exposition de rayonnement RF ISED établies pour un environnement non contrôlé.

Pour satisfaire la ISED extérieur étiquetage, le texte suivant doit être placé à l'extérieur du produit final "Contains émetteur module IC:7297A-LM57176".

The modular must be installed in the host that assign by

Le modulaire doit être installé dans l'hôte assigné par

Nom de la compagnie: Winplus Co., Ltd.

Produit/PMN: LED Ceiling light with ambiance glow

Modèle no./HVIN: LM57176

if other host types used would need further evaluation and possible C2PC if they are not significantly similar to the one tested.

si d'autres types d'hôtes utilisés nécessiteraient une évaluation plus poussée et un C2PC possible s'ils ne sont pas significativement similaires à celui testé