Highbay PIR Motion Sensor Build in 2.4GHz RF Grouping Function

PRODUCT.: 5.8GHz Highbay Motion Sensor Build in 2.4GHz RF Grouping Function

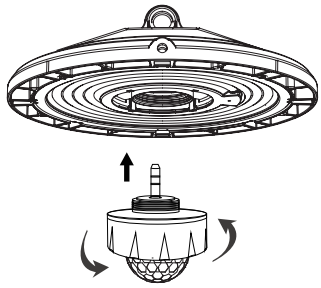
MODEL NO.: MS032C

SPEC NO.:

R & D DEPARTMENT		
WRITED BY	CHECKED	APPROVED

Product Features

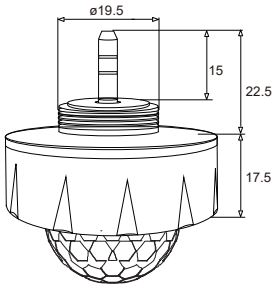
- 2.4GHz RF Synchronize grouping, stable and reliable.
- PIR motion sensor with 0-10V dimming for highbay light.
- Build in with daylight sensor, lux on and lux off function available.
- IP65 design, 3.5mm audio jack socket design for quick installation.
- Remote control setting.
- 5 years warranty.

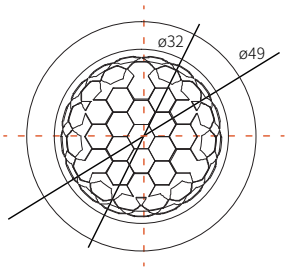


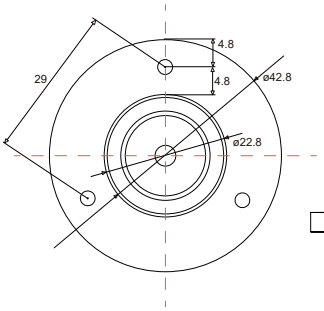
Technical data

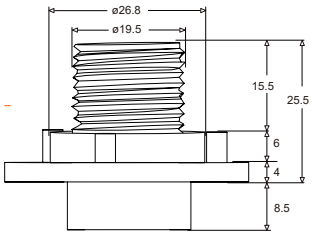
Input	Operating voltage	11-15V DC
	Operating current	≤40mA
Output	Output	0-10V (PWM for optional)
Sensor Parameters	Communicate frequency	2.4GHz RF
	Motion Sensor	PIR
	Sensitivity	100%/75%/50%/25%
	Hold time	5s/1min/3min/10min
	Daylight threshold	5Lux/25Lux/100Lux/Disable
	Stand-by period	0s/10s/10min/24h
	Stand-by dimming level	20%/30%
	Mounting height	Max.12m (Ceiling mounted)
	Detection range	Radius 4-6m (Ceiling mounted 12m)
	Operating temperature	-25°C~50°C
	IP rating	IP65
Note	Sensor setting and grouping function please refer to the remote controller MR010.	

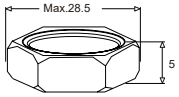
Dimension (Unit: mm)



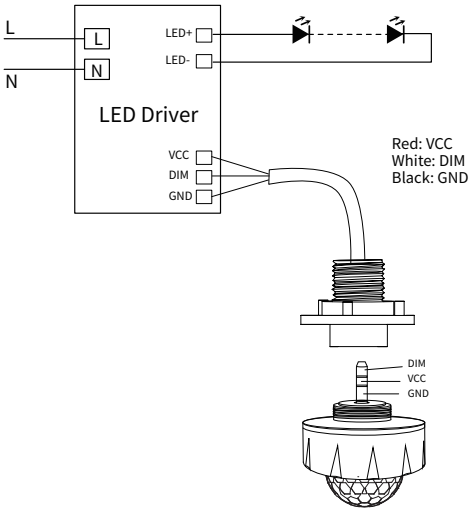


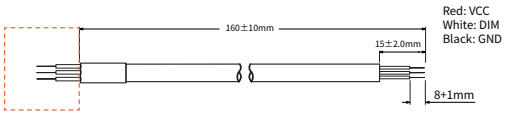




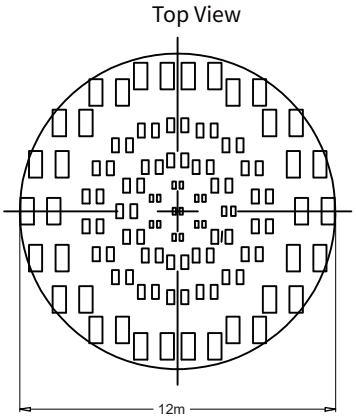


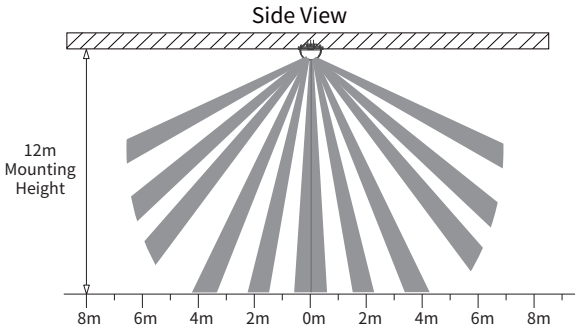
Wiring diagram





Detection Range



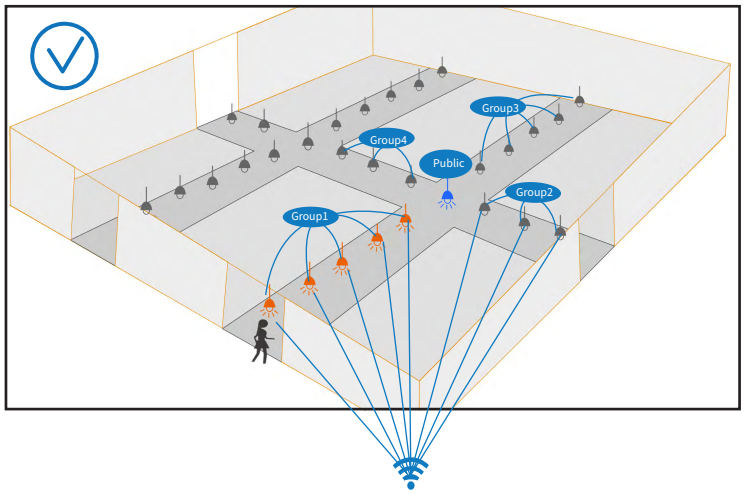


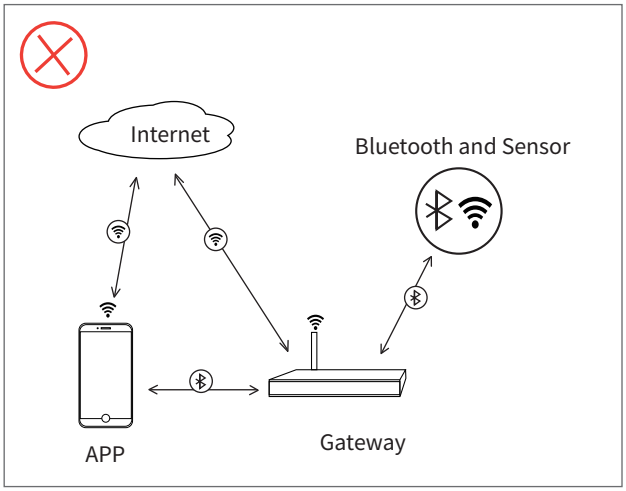
Motion detection and 2.4GHz RF Synchronize Grouping

MS032C was built in PIR motion sensor with 2.4GHz RF module in one , users can apply the synchronize and grouping function for different applications to get smart lighting and achieve intelligent projects base.

When any sensor in the group detecting any motion, it will trigger the whole group sensors even other sensors did not detect any motion, but those sensors will be not triggered without the group.

Use 2.4GHz RF comminucation has many benefits compare to use the bluetooth:
1) Use 2.4GHz RF is stable and reliable, the sensor can get longer detection range.
2) Easy to install and setting the group on site by one remote controller, do not need to use mobile phone APP, gateway and internet as the bluetooth.



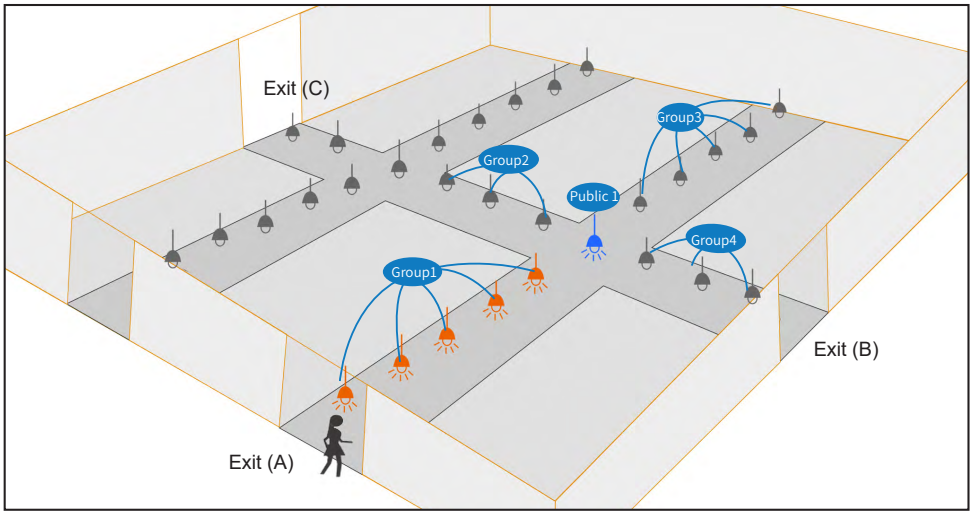


On site installation motion sensor with 2.4GHz RF Grouping setting by Remote Controller

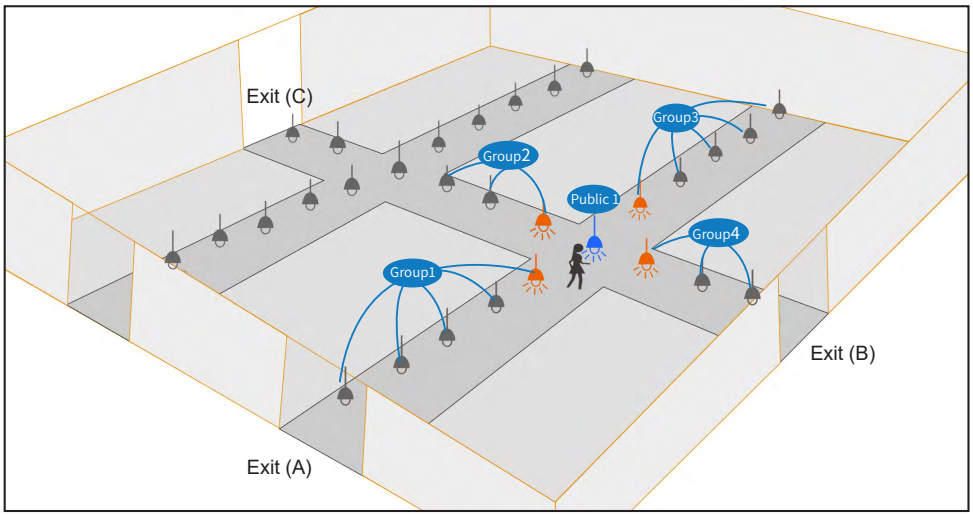
2.4GHz RF Grouping Function Introduce

Remark:
1、Point to point RF comminucation distance around 15m.
2、Public sensor will not make the 2nd transfer the sychronize signal to the next device when it was trigger by the near by motion sensor.

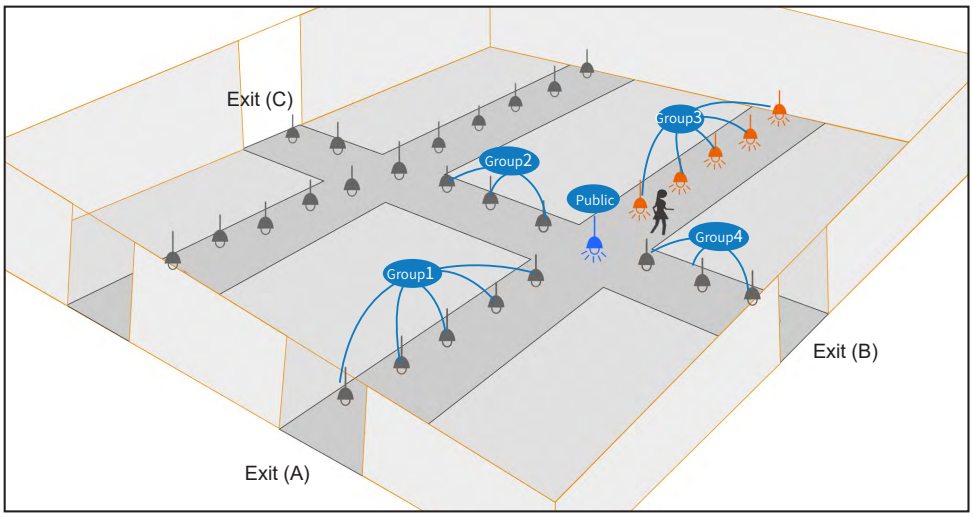
1、When the group 1 detect any motion, the sensor will turn on and transfer synchronize signal to the whole group, it will trigger the public sensor 1 which close to the group 1, but the public sensor 1 will not transfer the signal to others, so you can see the group 2, group3 and group4 will not turn on.



2. When the public sensor detect motion directly, it will transfer the synchronize signal one time only, you can see the sensor near by the public1 will turn on but those next will not.



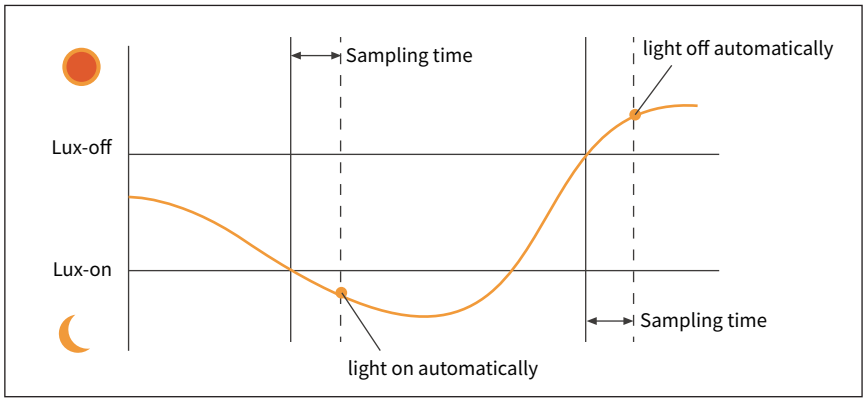
3. When group 3 sensor detect mtion, it will turn on and transfer synchronize signal at the same time, the group3 sensors will turn on and the near by public sensor 1 will trigger and turn on, but it will not transfer synchronze signal to others, those sensors near by the public sensor1 will not turn on.



Daylight Priority

The sensor was build in with sunlight sensor it can tell the difference between natural light and artificial LED light, the sensor will turn on the light when the ambient lux is lower than the setting lux value even there is no any motion was detected. When the ambient lux is higher than the setting value, the sensor will switch off the light even there is still motion.

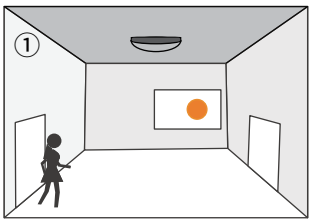
Note: Lux-Off sampling time--10s;
Lux-Off sampling time--10s;
Lux-On function takes effect only when standby dimming period set at 24h.



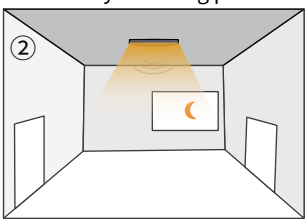
Application

1. Daylight priority:

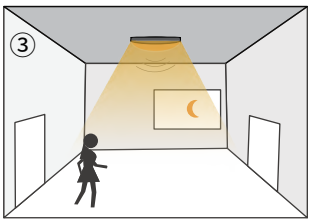
Lux-On function takes effect only when stand-by dimming period set at 24h.



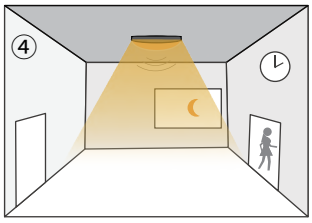
With sufficient daylight, even when motion detected, light remains OFF.



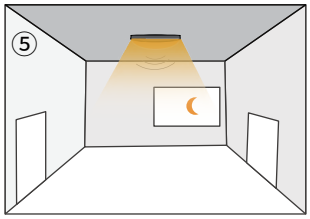
Light automatically on and dim to the stand-by dimming levle when ambient brightness is lower than preset lux level.



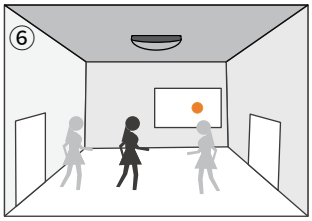
With insufficient ambient brightness, light dims to 100% when motion was detected .



Light keeps on 100% within the holdtime.



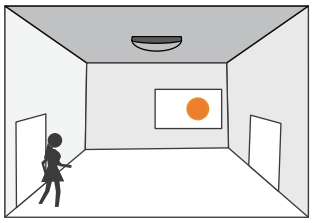
Light dims to standby level if no motion detected after holdtime.



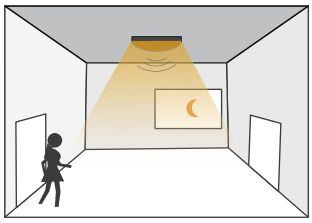
Light off when ambient lux level is higher than preset lux amount even there is still motion.

2. ON/OFF function:

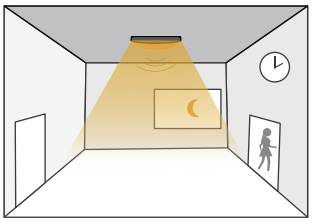
1). The daylight threshold is set to "5Lux/25Lux/100Lux, Stand-by period is set to "0s".



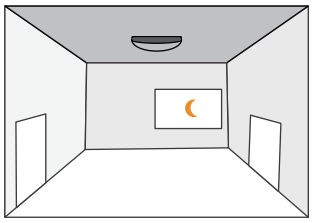
With sufficient daylight, even when motion detected, light remains OFF.



With insufficient ambient brightness, light dims to 100% when motion was detected .

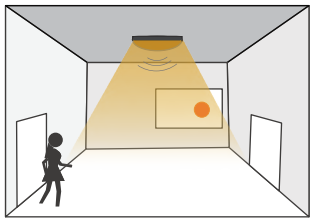


Light keeps on 100% within the holdtime.

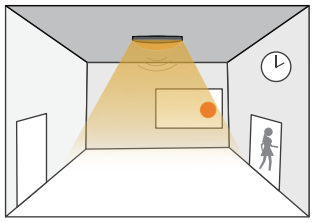


After the last detection and the preset hold time elapsed, light OFF.

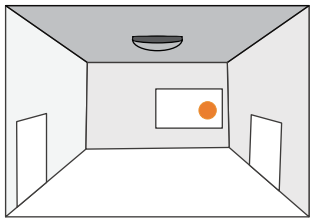
2). The daylight threshold is set to "Disable". Stand-by period is set to "0s".



When motion is detected, the sensor will switch on the light to 100% brighteness.



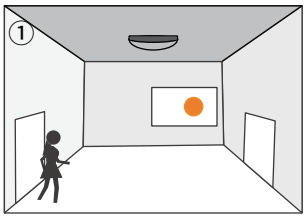
After people leave the detection area, light remains 100% brightness within hold time.



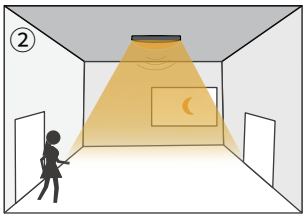
After the last detection and the present hold time elapsed, light OFF.

3. Dimmable control/Corridor function:

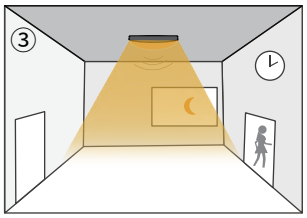
The daylight threshold is set to "5Lux/25Lux/100Lux, Stand-by period is set to "10s/10min".



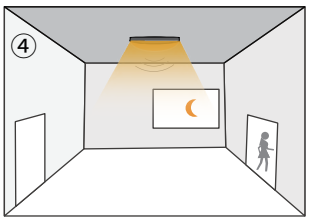
With sufficient daylight, even when motion detected, light remains OFF.



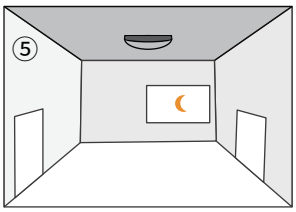
With insufficient ambient brightness, light dims to 100% when motion was detected .



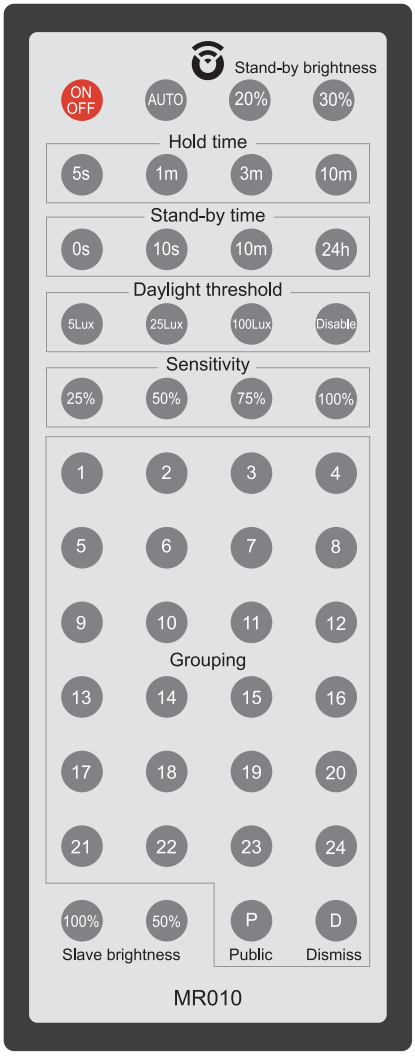
Light keeps on 100% within the holdtime.



Light dims to standby level if no motion detected after holdtime.



After the stand-by period, light OFF.



Size (L*W*H): 139*54*10mm
Please ues CR2025 battery

MR010 Grouping Synchronize Function Remote Controller

Key	Function
ON/OFF	Setting the light permanent ON or OFF without motion sensor mode.
Auto	Turn on the sensor mode
Hold time	The period of light keeping 100% brightness after moving objects leave the detection area.
Daylight threshold	Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work; when it's preset as "disable", the sensor will detects motion regardless the ambient brightness.
Sensitivity	Detection range, movement will be detected and able to trigger the sensor. 100% detection range is also known as the strong sensitvity.
Stand-by period	The period of light keeping low output before it's completely switched off. When it's preset as"+∞“, the light always keep at low output if no movement in the detection area and doesn't turn off.
Stand-by dimming level	The dimming level in the stand-by period.
Grouping	Grouping To set up a group which the sensors are on power and receive the remote controller signal. User can set 24 groups for grouping, no sensor qty limited in one group.
Public	Set the sensor as a public device, publice device will be triggered by any synchronize signal from any groups, but will not relay signal to others. It is suitable to set the crossing device as public device.
Dismiss	Override the grouping function
Salve Brightness	Set the slave lights brightness level, users can set the lights far away from the people movement areas in a lower brightness to save energy. When set 100%, the slave lights will turn on at 100% when it recieve the RF signal, to get high performance. When set 50%, the salve lights will turn on at 50%, and slave device will no relay the RF signals to others, to save energy.

* Remote Setting Tips: When press any button, if the light is flickering one time, means the setting is successful.

FCC Statement

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.

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.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF Exposure

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.