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# Wireless IR Blaster

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Wireless Sensor Network Based on LoRa Technology



## R211

# Data Sheet

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## Wireless IR Blaster

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### Introduction

Netvox Wireless IR Blaster can be used for IR learning and application. After IR learning, R211 can send the infrared control signal to corresponded electric devices. R211 can receive infrared signal from other infrared device and process predefined action, ex. controlling other LoRa devices.

### Main Characteristic

- Improved interference immunity
- Compatible with LoRaWAN™ Class C
- Frequency hopping spread spectrum (FHSS)
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Built-in 4M serial flash
- Infrared learning and emission
- Infrared frequency 38KHz
- Configuration parameters can be configured through third-party software platforms, data can be read and alarms can be set via SMS text and email (optional)
- Applicable to the third-party platforms: Actility/ThingPark, TTN, MyDevices/Cayenne
- Low power consumption and long battery life

Note:

Battery life is determined by the sensor reporting frequency and other variables, please refer to [http://www.netvox.com.tw/electric/electric\\_calc.html](http://www.netvox.com.tw/electric/electric_calc.html)

On this website, users can find battery life of various models in different configurations.

### Application

- Remote controlling of air condition, TV, HiFi Audio, etc.

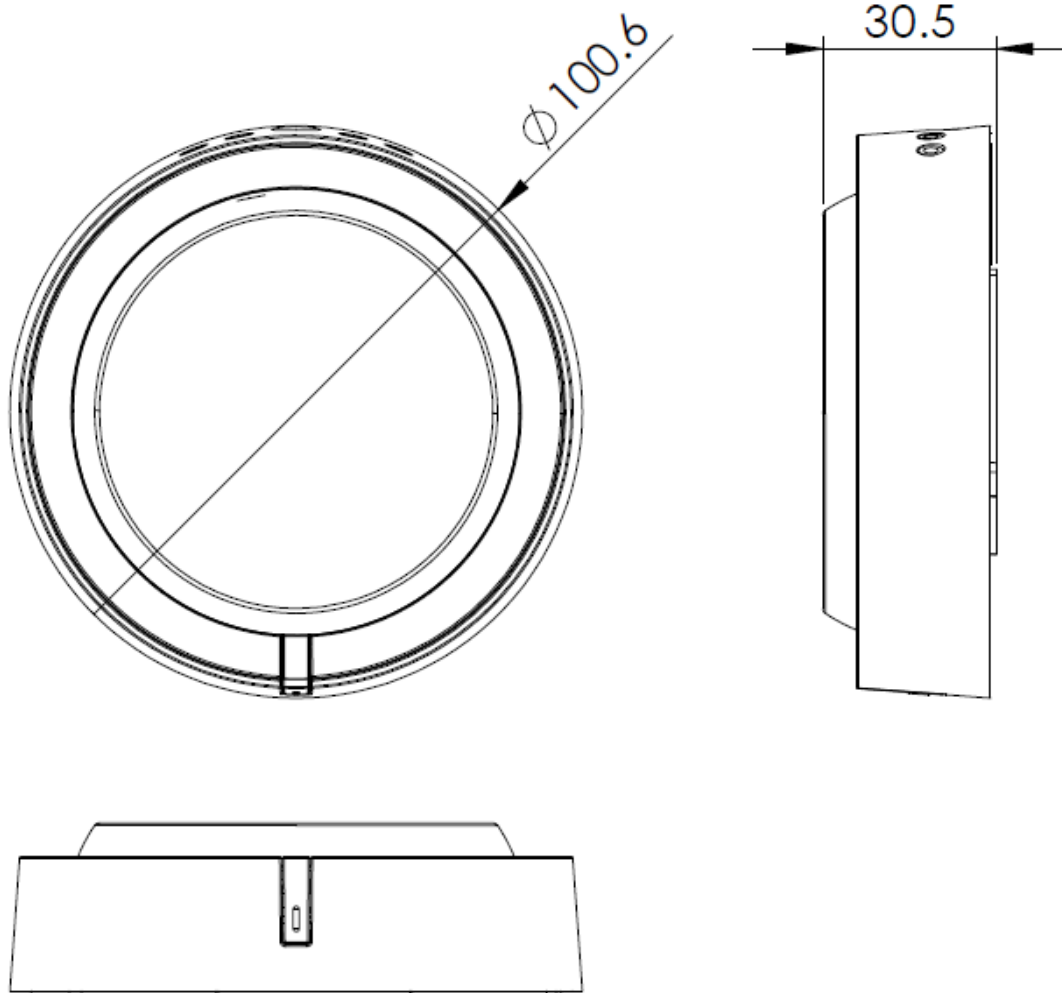
Wireless IR Blaster

Appearance



**Wireless IR Blaster**

**Dimension**



**Electric**

Power Supply	DC 12V
Working Current	50mA / 12V/ 0.6W
Infrared Frequency	38 KHz
Infrared Transmission Range	32 meters

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**Wireless IR Blaster**


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**Frequency**

TX Power	US915 20dbm; AS923 16dbm; AU915 20dbm; CN470 19.15dbm; EU868 16dbm; KR920 14dbm; IN865 20dbm;
Receiving Sensitivity	-136 dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps) -121 dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Build-in antenna
Communication Distance	10 km (Visible linear obstacle-free transmission distance, actual transmission distance depending on the environment.)
Data Transfer Rate	0.3kbps ~ 50kbps
Modulation	LoRa / FSK (Note: choose one of them)
Supportable LoRaWAN Frequency	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 (Note: The frequency band is optional and needs to be configured before shipment.)

**Physical**

Dimension	Diameter-106mm , height-30.5mm
Weight	100g
Environment Humidity Range	5% ~ 90 %RH (No condensation)
Operating Temperature	-20°C to 55 °C
Storage Temperature	-40°C to 85 °C