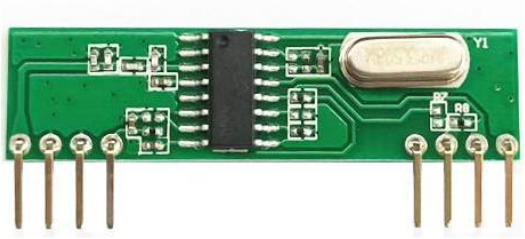
# Type: ASK/OOK Super-Heterodyne Receiver Module

# Model: CY70-XXX

## Description:

The CY70 is a ASK/OOK compatible super heterodyne wireless receiving module with high performance for ISM frequency band. High receiving sensitivity and strong ability of resisting. From wireless signal input to data output can be done without any electrical circuit. User only use extra simple data decode circuit can achieve wireless products development. CY70 is for commercial level version.



## Order Information:

| Model NO. | Frequency |
|---|---|
| CY70-315 | 315 MHz |
| CY70-433 | 433.92 MHz |

## Features:

- Frequency: 315MHz/433.92MHz (custom frequency is available);
- High sensitivity: -114dBm;
- Supply voltage: 2.4 to 5.5V;
- IF band: 230KHz @433.92M;
- Low power consumption: 5V, 4.3mA@315M, 5V, 4.6mA@433.92M;
- Good selectivity and stray radiation suppression ability, easy to pass CE / FCC international certification
- Good local oscillation radiation suppression ability, can work with multiple receiving modules (single transmission and multiple reception) without interference with each other, use together without Affect the receiving distance.

## Application

- Car remote control door switch (RKE)
- Wireless industrial remote control
- Remote door opener
- Wireless security alarm
- Remote control curtain
- Drying racks, garbage disposals and other products with motor interference

## Pin Description

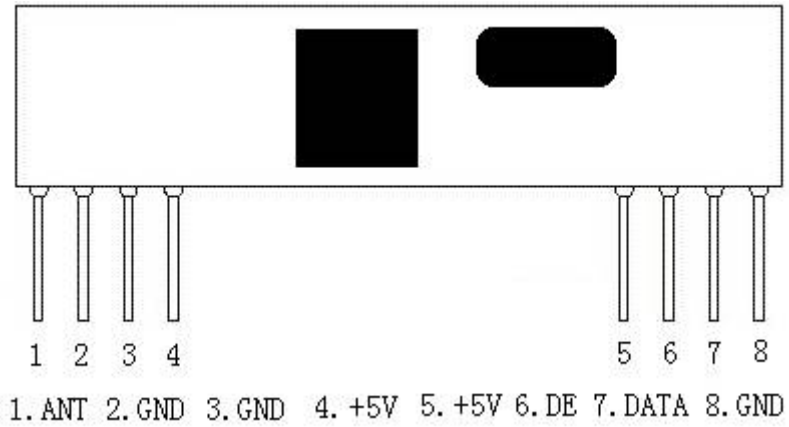



**Figure1 CY70 Shape & Pins**

Pin-out as showed in figure 1 above

| Pin Name | Pin Definition |
|---|---|
| **ANT** | Antenna In |
| **GND** | Connect to negative power supply |
| **GND** | Connect to negative power supply |
| **VCC** | Connect to positive power supply |
| **VCC** | Connect to positive power supply |
| **DE** | Optional output:<br>1, DATA output(default setting)<br>2, Battery Saving Mode<br>(Working mode in high level input)<br>(Sleeping mode in low level input） |

| | |
|---|---|
| **DATA** | Data Output |
| **GND** | Connect to negative power supply |

**Note 1**: ANT pin is a 50 ohm antenna input. The length is about:
23cm for 315MHz
17cm for 433.92MHz

## Electrical Characteristics:

Condition: Ta=25℃ Vcc=5.0V Frequency=315MHz

| Parameter | Specification | | | Unit | Condition |
|---|---|---|---|---|---|
| | Min. | Typ. | Max. | | |
| Frequency Range | 314.90 | 315 | 315.10 | MHz | Other freq. available |
| Modulation | | ASK | | | |
| Receiver Sensitivity | | -114 | | dBm | BER=10E-2 |
| Receiving Bandwidth | | 200 | | kHz | |
| Decoding output max. voltage | 2.4 | 3.75 | 5.0 | V | DC |
| Decoding output max. voltage | | | 0.5 | V | |
| Current | 3.6 | 4.3 | 5.0 | mA | DC |
| Operating Temperature | -20 | | 70 | ℃ | |

Condition: Ta=25℃ Vcc=5.0V Frequency=433.92MHz

| Parameter | Specification | | | Unit | Condition |
|---|---|---|---|---|---|
| | Min. | Typ. | Max. | | |
| Frequency Range | 433.82 | 433.92 | 434.02 | MHz | Other freq. available |
| Modulation | | ASK | | | |
| Receiver Sensitivity | | -114 | | dBm | BER=10E-2 |
| Receiving Bandwidth | | 200 | | kHz | |
| Decoding output max. voltage | 2.4 | 3.75 | 5 | V | DC |
| Decoding output max. voltage | | | 0.5 | V | |
| Current | 3.9 | 4.6 | 5.3 | mA | DC |
| Operating Temperature | -20 | | 70 | ℃ | |

## Mechanical Size: (Unit: MM)

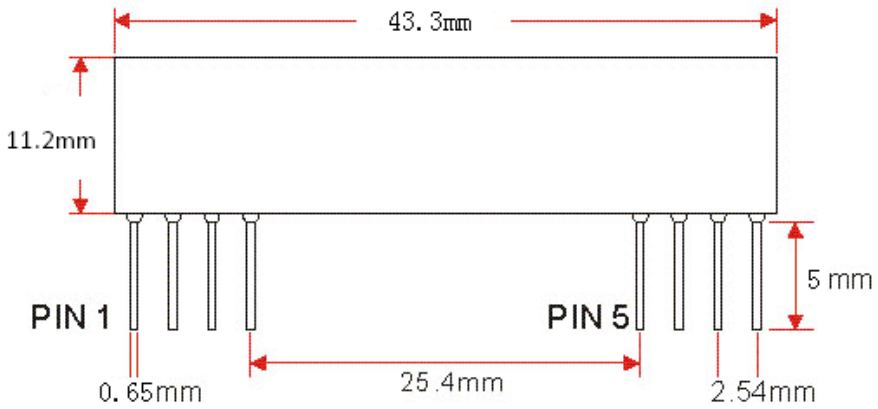



**Figure2 CY70 Dimension**

## Cautions:

The drive current of the data output pin is relatively weak. If the MCU is directly driven, the I/O port must not be connected to the pull-up or pull-down resistor, and the inside pull-up or pull-down resistor must be set in the disabled state.

For more information and assistance, please contact us as follows:

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