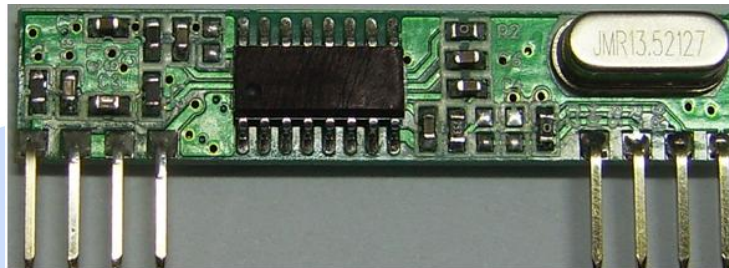


Type: ASK/OOK Super-Heterdyne Receiver Module

Model: CY39

Description:

The CY39 is a ASK/OOK compatible super heterodyne receiver module. CY39 is a superior performance receiver for ISM band. With the adoption of branded industrial RF wireless data receiver chip, CY39 has the high receiving sensitivity and strong anti-interference ability. It can do wireless signal input to the data signal output without any external circuit. Users only need to decode the data plus a simple circuit and then any wireless products development can be easily achieved.



Features:

- Frequency: 315MHz/433.92MHz(custom frequency is available)
- High sensitivity -112dBm
- Power down mode with very low supply current (50nA typ)
- Operation temperature: -20°C ~70°C
- Supply voltage: 3.3V - 5V
- Low power consumption: 6.8mA 5V@ 433.92MHz/ 4.8mA 5V @ 315MHz
- Data rate: Max. 10Kbps
- Support RSSI function
- Excellent inhibiting ability for local oscillator radiation: multiple receivers receive signals from one transmitter simultaneously without any mutual interference and influence on range;
- Good selectivity and stray radiation suppression ability. Easy to pass CE/FCC certificates.

Application:

- TPMS/RKE/PKE
- Wireless Industrial remote controls
- Remote control curtain
- Garage door and gate openers
- Alarm and security system
- Wireless data transmission

Pin Definition:

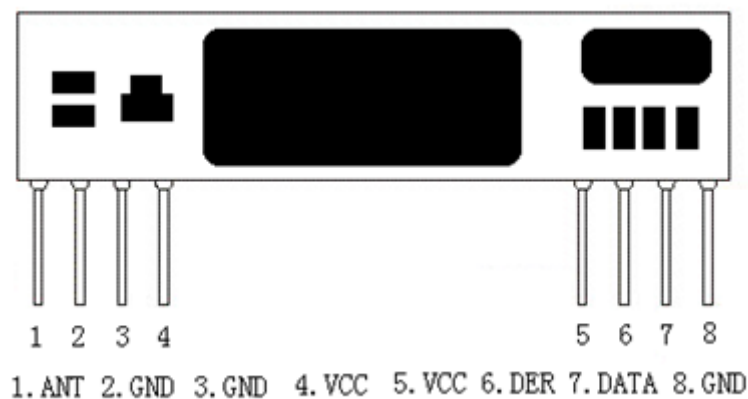


Figure1 CY39 Shape & Pins

| Pin | PIN NAME | PIN DEFINITION |
|-----|----------|--|
| 1 | ANT | RF signal input pin, connect antenna outside(Note 1) |
| 2 | GND | Connect to negative power supply |
| 3 | GND | Connect to negative power supply |
| 4 | VDD | Connect to positive power supply |
| 5 | VDD | Connect to positive power supply |
| 6 | R/E/D | Options: 1. R-RSSI 2. E- Energy saving mode 3. D- Data output |
| 7 | DATA | Data output |
| 8 | GND | Connect to negative power supply |

Note1: ANT pin is a 50 ohm antenna input. The length is about:
 23cm for 315MHz
 17cm for 433.92MHz

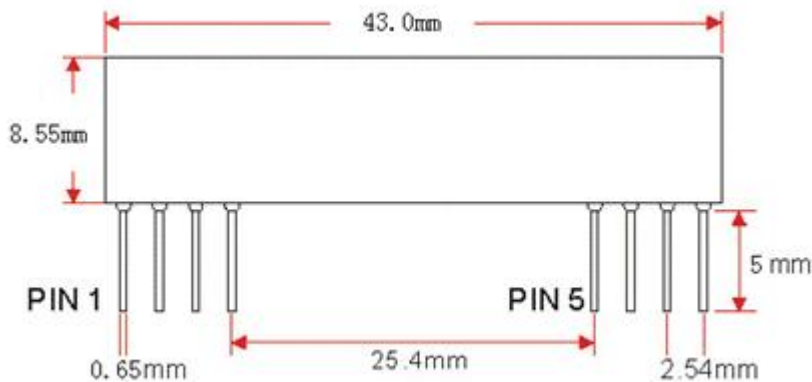
Electrical Characteristic:

Condition: Ta=25°C Vcc=5.0V Freq.=315MHz

| Specification | Specification | | | Unit | Condition |
|-----------------------|---------------|--------|--------|------|--------------------------------------|
| | Min. | Typ. | Max. | | |
| Frequency Range | 314.90 | 315.00 | 315.10 | MHz | Other freq. available |
| Receiver Sensitivity | | -110 | | dBm | 50Ohm antenna input directly/1K Kbps |
| Receiving Bandwidth | | 200 | | kHz | |
| Data Rate | | | 9.6 | Kbps | Manchester code |
| Supply Voltage | 3.3 | 5 | 5.5 | V | |
| Voltage as decoding | 0.5 | | 2.8 | V | RL=500K |
| Current | 4.6 | 4.8 | 5.0 | mA | |
| Start Time | | | 5 | ms | |
| Operating Temperature | -20 | | 70 | °C | |

Condition: Ta=25°C Vcc=5.0V Freq.=433.92MHz

| Specification | Specification | | | Unit | Condition |
|-----------------------|---------------|--------|--------|------|--------------------------------------|
| | Min. | Typ. | Max. | | |
| Frequency Range | 433.82 | 433.92 | 434.02 | MHz | Other freq. available |
| Receiver Sensitivity | | -112 | | dBm | 50Ohm antenna input directly/1K Kbps |
| Receiving Bandwidth | | 200 | | kHz | |
| Data Rate | | | 9.6 | Kbps | Manchester code |
| Supply Voltage | 3.3 | 5 | 5.5 | V | |
| Voltage as decoding | 0.5 | | 2.8 | V | RL=500K |
| Current | 4.6 | 4.8 | 5.0 | mA | |
| Start time | | | 5 | ms | |
| Operating Temperature | -20 | | 70 | °C | |

Mechanical Size:

CY39 Dimension

Note:

Because of the weak current of CY39 data output pin, I/O port on the single chip cannot connect pull-up or pull-down resistor and these resistors inside single chip must be set as disable state if it is needed to directly drive the single chip.

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

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