



**DESCRIPTION**

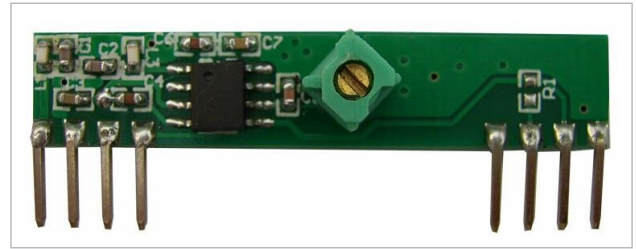
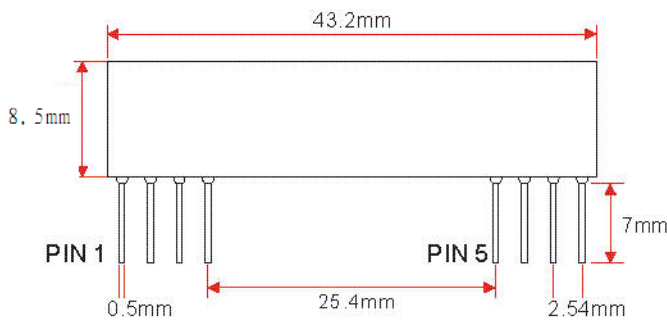
CY50 is a super-regenerative wireless receiving module which adopts rf wireless data transmission receiving chip. It is a low cost receiving module with ISM frequency which suitable to low end wireless products applications. CY50 improves the stability and reliability of low-end wireless products, improves the quality and image of products, hence to strengthen the competitiveness of the products. By using simple data decoding circuit, users can easily achieve the development of wireless products.

**FEATURES**

- Frequency: 292M/433.92MHz (custom frequency is available);
- Low power consumption 5.0V @ 433.92MHz, 4.6mA; 5.0V @292MHz, 4.4mA , continuous data transfer rate to 2.4Kbps;
- Low cost;
- Sensitivity to: -101dBm;
- Operation temperature: -20°C ~70°C;
- Be compatible with most (ASK/OOK) transmitters.

**MECHANICAL DIMENSION**

Figure 2 CY50 Dimension



**APPLICATION**

- Smart home system
- Remote controls
- Remote fan and light control
- Garage door and gate openers
- Alarm and security system
- Wireless data transmission

**PIN DEFINITION**

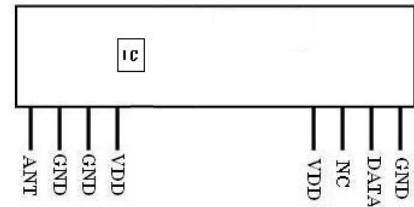


Figure 1 CY50 Shape & Pins

Pin-out as showed in figure 1 above

Pin Name	Pin Definition
ANT	RF signal input pin, connect antenna outside (Note 1)
GND	Connect to negative power supply
GND	Connect to negative power supply
VDD	Connect to positive power supply
VDD	Connect to positive power supply
NC	No connect
DATA	Data output pin, connect to MCU or decoder's input pin
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

**PRE CAUTION**

This module data output pin drive current is relatively weaker. If to directly drive the MCU, the I/O port of MCU cannot connect with pull-up and pull-down resistors. The pull-up and pull-down resistors inside MCU need to be set in "Disable".

Condition: Ta=25°C VCC=5.0V Frequency=292MHz

ELECTRICAL CHARACTERISTICS					
Parameters	Condition	Reference Value			Unit
		Min	Typ	Max.	
Frequency Range	other freq. available	291	292	293	MHz
Receiver Sensitivity	BER=10E-2		-98		dBm
Data Rate	Manchester Code	0.58	1.2	2.4	KBaud
Supply Voltage VDD	DC	4.5	5.0	5.5	V
Current	DC	4.2	4.4	4.6	mA
Operating Temperature		-20		+70	°C

Condition: Ta=25°C VCC=5.0V Frequency=433.92MHz

ELECTRICAL CHARACTERISTICS					
Parameters	Condition	Reference Value			Unit
		Min	Typ	Max.	
Frequency Range	other freq. available	433	433.92	435	MHz
Receiver Sensitivity	BER=10E-2		-98		dBm
Data Rate	Manchester Code	0.58	1.2	2.4	KBaud
Supply Voltage VDD	DC	4.5	5.0	5.5	V
Current	DC	4.2	4.6	4.8	mA
Operating Temperature		-20		+70	°C

**ORDER INFORMATION:**

**CY 50 - 433.92 X**

