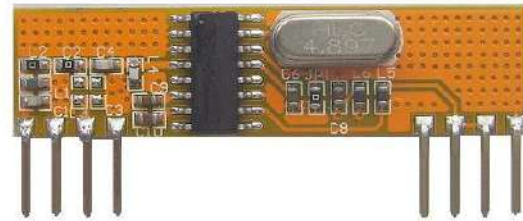


Type: ASK/OOK Super-Heterodyne Receiver Module
Model: CY16-XXX

1. DESCRIPTION:

CY16 is an ASK/OOK receiver super-heterodyne module adopted highly integrated RF IC chips, which is designed specifically for unlicensed remote-control and wireless security receiver operating at 315/433.92Mhz in USA under FCC Part 15 regulation. The CY16 is base on a single-conversion, super-heterodyne receiver architecture and incorporates an entire Phase-Locked Loop (PLL) for precise local oscillator generation. It can be used in OOK/ HCS/ PWM modulation signal and demodulate to digital signal. CY16 have a high performance at a competitive cost and easily to design your product.



2. FEATURES:

- Low power consumption and low cost;
- High frequency stability (no adjust components) & coherence;
- Very low RF re-radiation at the antenna;
- Higher sensitivity: -107dBm;
- Operation temperature: -20°C ~70°C (It can custom to -40~85°C upon requests)
- Supply voltage: 3.3 ~ 5.5v;
- Low current: 2.8mA(5V)@315MHZ;
- Compatible with most AM (ASK/OOK) transmitters;

3. APPLICATION:

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

4. PIN DEFINITION:

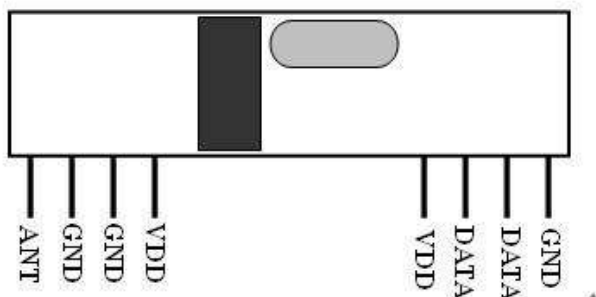


Figure1 CY16 Shape & Pins

Pin-out as showed in figure1 above.

Pin Name	Pin Definition
ANT	RF signal input pin, connect antenna outside(Note1)
GND	Connect to negative power supply
GND	Connect to negative power supply
VDD	Connect to positive power supply
VDD	Connect to positive power supply
DATA	Data output pin, connect to MCU or decoder's input pin
DATA	Data output pin, connect to MCU or decoder's input pin
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

5. ELECTRICAL CHARACTERISTICS:

Condition: $T_a=25^{\circ}\text{C}$ $V_{cc}=5.0\text{V}$ Frequency=315MHz

Parameter	Specification			Unit	Condition
	Min	Typ	Max		
Frequency Range		315		MHz	Other freq. available
Receiver Sensitivity		-107		dBm	BER=10E-2



Data Rate	0.58	2.4	4.8	KBaud	Manchester code
Supply Voltage, VDD	3.3	5.0	5.5	V	DC
Current		2.8		mA	DC
Operating Temperature	-20		+70	°C	-40~+85

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

Parameter	Specification			Unit	Condition
	Min	Typ	Max		
Frequency Range		433.92		MHz	Other freq available
Receiver Sensitivity		-107		dBm	BER=10E-2
Data Rate	0.58	2.4	4.8	KBaud	Manchester code
Supply Voltage, VDD	3.3	5.0	5.5	V	DC
Current		4.1		mA	DC
Operating Temperature	-20		+70	°C	-40~+85

6. MECHANICAL SIZE: (UNIT: mm)

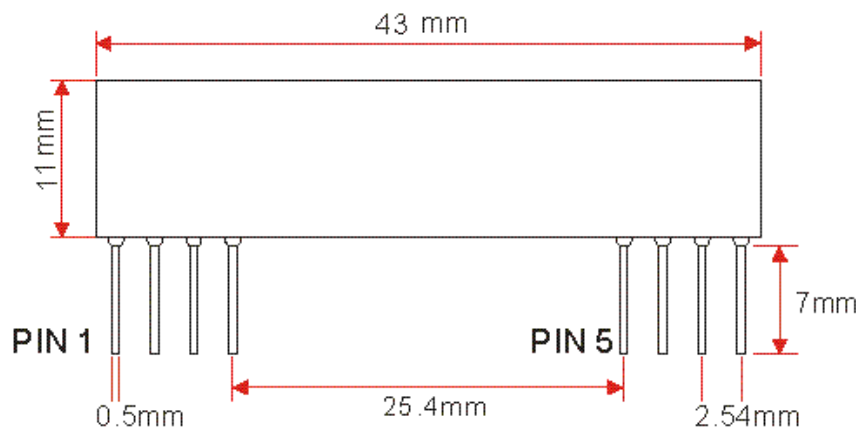
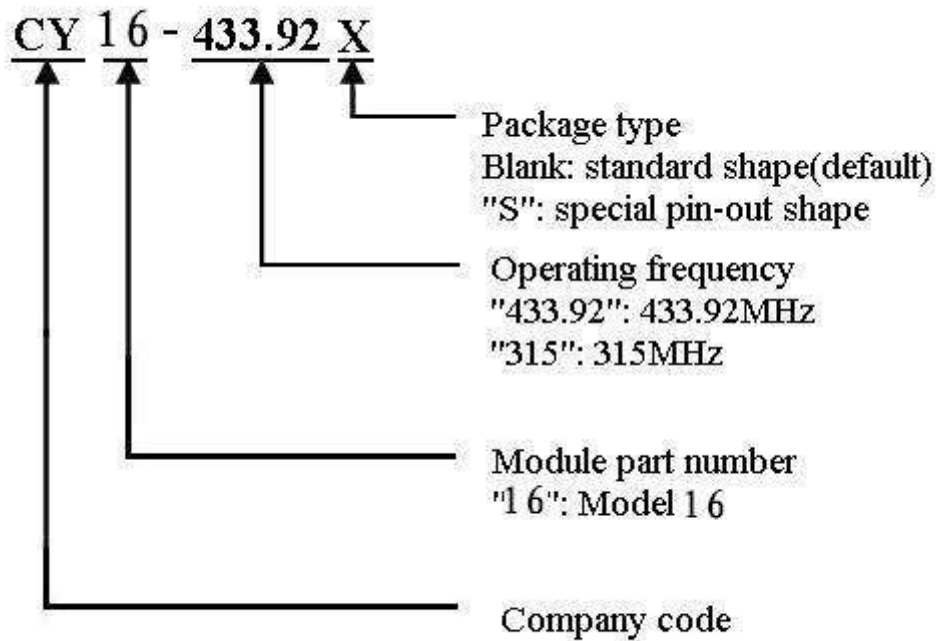


Figure2 CY16 Dimension

7. ORDER INFORMATION:



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

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