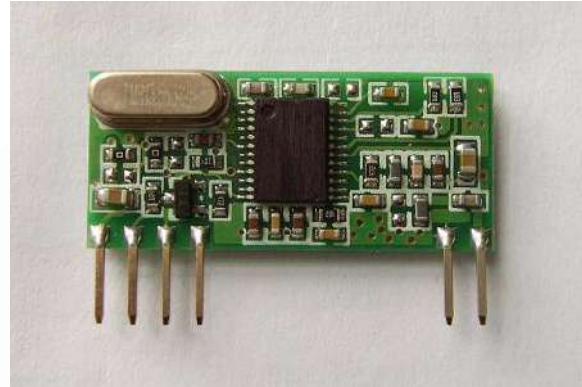


**Type:** ASK/OOK/FSK Super-Heterodyne Receiver  
**Module**  
**Model:** CY05-XXX

### 1. DESCRIPTION:

CY05 is ASK and FSK universal wireless receiver module, the use of foreign automotive-grade wireless data radio receiver chip, with high receiver sensitivity and superior anti-interference ability. Without external circuitry, CY05 can do the wireless signal input to the data signal output. Due to the superior performance, CY05 has become favorable choices as receiver module for the application of RKE and BCM for many car manufacturers. It can easily achieve the development of wireless product simply by adding data decoding circuit.



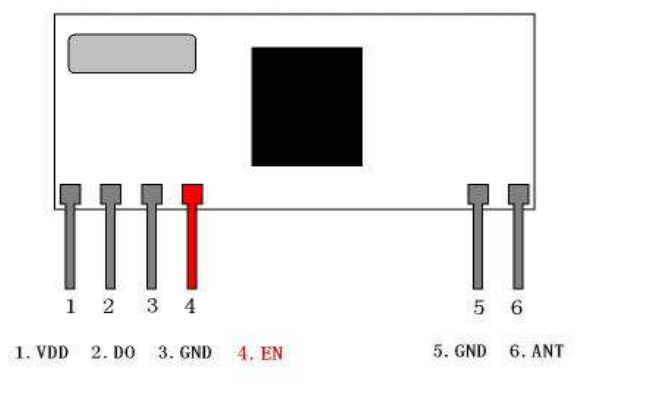
### 2. FEATURES:

- High sensitivity -116dBm;
- Frequency: 315MHz/433.92MHz(custom frequency is available)
- Modulation: ASK/OOK/FSK;
- Low operation voltage: VCC= 3.6-5.5 V;
- Low Current: 6mA
- Consumption Current during Battery saving mode: 10nA
- Operating Temperature: -40°C~+85°C;

### 3. APPLICATION:

- Remote gate controls
- Remote keyless entry/ Car alarm systems
- wireless security systems
- Automation systems
- Remote control systems

#### 4. PIN DEFINITION:



**Please note:** CY05 is come with standard 5 PINs (without the red colored pin) . Please notify us if you would like 6PINs.

Pin Name	Pin Definition
VDD	Connect to positive power supply
DO	Data
GND	Connect to negative power supply
EN	Optional output: 1.Empty(default setting); 2.Battery saving mode(shut down):  (Working mode in High level input) (Sleeping mode in Low level input)
GND	Connect to negative power supply
ANT	Antenna In

**Note1:** ANT pin is a 50 ohm antenna input. The length is about:

23cm for 315MHz

17cm for 433.92MHz



### 5. ELECTRICAL CHARACTERISTICS:

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

Characteristics	Min	Typ	Max	Unit	Note
F <sub>c</sub> Carrier Frequency	310	314.98	316	MHz	IF = 220kHz
V <sub>cc</sub> Supply Voltage	3.0	5.0	5.5	V	5.0v at default
I <sub>s</sub> Supply current	4.3	5.7	7.1	mA	ASK
	4.5	5.9	7.3		FSK
Modulation Mode	ASK/FSK				
RF sensitivity		-115		dBm	600bps(Manchester), dev=±40kHz
F <sub>dev</sub> Frequency Deviation		±40kHz			
B <sub>w</sub> -3dB Bandwidth		250		KHz	
Datarate		1.2	9.6	kbps	
T <sub>on</sub> Turn on time from sleep			3	ms	
V <sub>IL</sub> “L”level input/output level	0		0.2	mA	
V <sub>IH</sub> “H”level input/output level	2.0		5.5	V	
Output leak current (H level)		0	2	μA	
V <sub>DATAL</sub> Output voltage (L level)			0.4	V	I <sub>DATAL</sub> = 200μA
DR Wave shaping output duty ratio	45	50	55	%	V <sub>IN</sub> (MIX) = 60dBmVEMFF or single tone
I <sub>RR</sub> Image Suppression Ratio		35		dB	
T <sub>op</sub> Opertaing Temperature Range	-40		+85	°C	

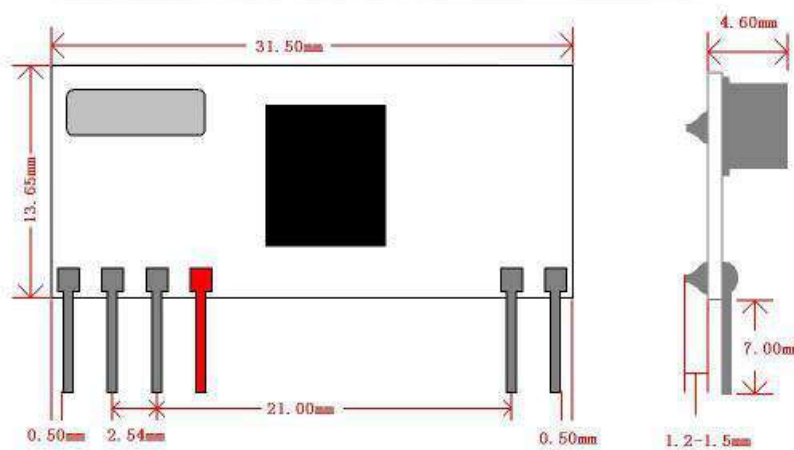
Condition: Ta=25°C Vcc=5.0V Frequency=433.92MHz

Characteristics	Min	Typ	Max	Unit	Note
F <sub>c</sub> Carrier Frequency	430	433.92	435	MHz	IF = 220kHz
V <sub>cc</sub> Supply Voltage	3.0	5.0	5.5	V	5.0v at default
I <sub>s</sub> Supply current	4.6	6.1	7.6	mA	ASK
	4.7	6.3	7.9		FSK
Modulation Mode	ASK/FSK				
RF sensitivity		-116		dBm	600bps(Manchester), dev=±40kHz
F <sub>dev</sub> Frequency Deviation		±40kHz			
B <sub>w</sub> -3dB Bandwidth		250		KHz	
Datarate		2.4	9.6	kbps	At default



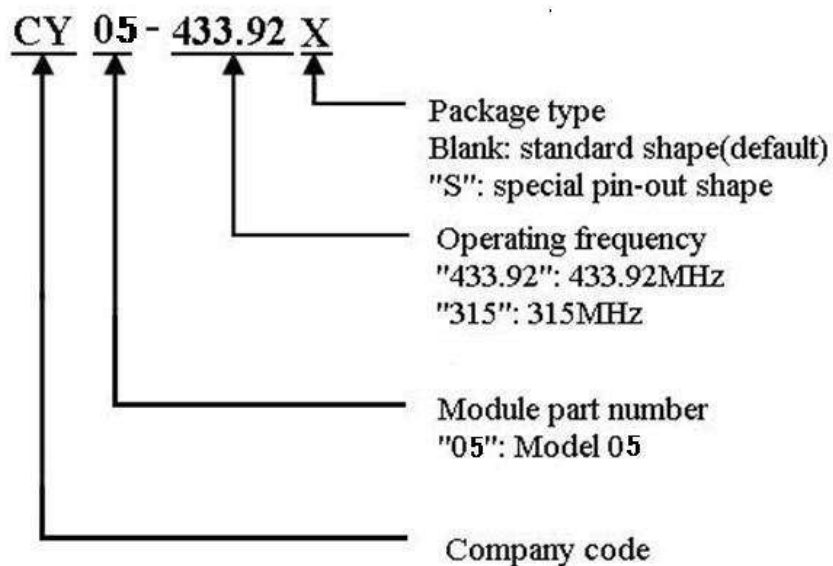
T <sub>on</sub>	Turn on time from sleep			3	ms	
V <sub>IL</sub>	“L”level input/output level	0		0.2	mA	
V <sub>IH</sub>	“H”level input/output level	2.0		5.5	V	
	Output leak current (H level)		0	2	μA	
V <sub>DATAL</sub>	Output voltage (L level)			0.4	V	I <sub>DATAL</sub> = 200μA
DR	Wave shaping output duty ratio	45	50	55	%	V <sub>IN</sub> (MIX) = 60dBmVEMFF or single tone
I <sub>RR</sub>	Image Suppression Ratio		35		dB	
T <sub>op</sub>	Opertaing Temperature Range	-40		+85	°C	

**6. MECHANICAL SIZE: (UNIT: mm)**



**Figure2 CY05 Dimension**

## 7. ORDER INFORMATION:



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

**CY WIRELESS TECHNOLOGY LIMITED**

Add: 1407, Block C, Tairan Building, 8th Tairan Road, Futian District,

Shenzhen, Guangdong Province, China

Website: [www.rficy.com](http://www.rficy.com)

Email: [info@rficy.com](mailto:info@rficy.com)