



Type: ASK/FSK Super-Heterodyne Receiver Module

Model: CY72-V3.0-XXX

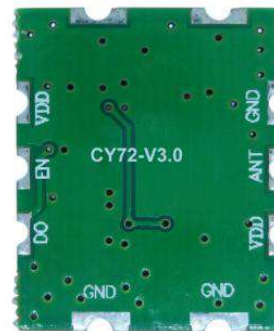
Description:

The CY72-V3.0 is a ASK/OOK/FSK compatible superhet receiver which is designed with high sensitivity and long distance transmission. It can easily achieve the development of wireless products by adding a simple data decoding circuit.



Order Information:

Model NO.	Freq.	Modulation
CY72-V3.0-315-ASK	315MHz	ASK
CY72-V3.0-433.92-ASK	433.92MHz	ASK
CY72-V3.0-315-FSK	315MHz	FSK
CY72-V3.0-433.92-FSK	433.92MHz	FSK



Features:

- Frequency: 315MHz/433.92MHz(custom frequency is available);
- High sensitivity -116dBm (ASK/OOK), -115dBm(FSK);
- Supply voltage: VCC= 3.6 to 5.5 V;
- IF band: 220KHz;
- Low power consumption: Icc=6.3mA(FM mode, Vcc=5.0V@434MHz);
- Consumption current during BS(battery saving)mode: 0uA(typ.);
- Easy for application;



- Wide operating temperature;
- Fast response time.

Application

- Remote gate controls
- Remote keyless entry
- Car alarm systems
- Wireless security systems
- Automation systems

Pin Description

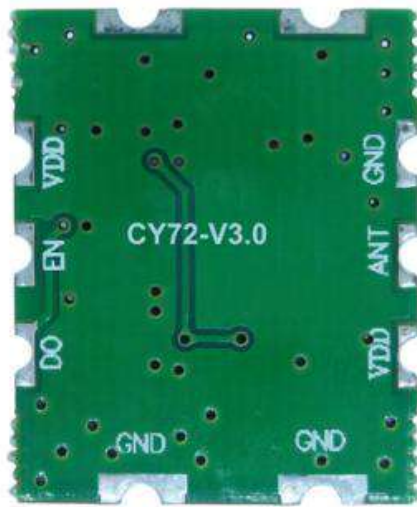


Figure1 CY72-V3.0 Shape & Pins

Pin Name	Pin Definition
ANT	Antenna In
VDD	Positive Power Supply
GND	Ground
DO	Data output



EN	Optional output: 1, No Connect (default setting) 2, Battery Saving Mode: (Working mode in High level input) (Sleeping mode in Low level input)
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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°C Vcc=5.0V Frequency=315MHz

Parameter	Specification			Unit	Condition
	Min	Typ.	Max		
Carrier Frequency	310	314.98	316	MHz	IF = 220kHz
Supply Voltage	3.6	5.0	5.5	V	5.0v at default
Supply current	4.3	5.7	7.1	mA	ASK
	4.5	5.9	7.3		FSK
Modulation Mode	ASK/FSK				
RF sensitivity		-116		dBm	600bps(Manchester), dev=±40kHz
Frequency Deviation		±40		kHz	
-3dB Bandwidth		250		KHz	
Data Rate		1.2	9.6	Kbps	
Turn on time from sleep			3	ms	
“L” level input/output level	0		0.2	mA	
“H” level input/output level	2.6		5.5	V	
Output leak current (H level)		0	2	μA	



CY72-V3.0

Output voltage (L level)			0.4	V	$I_{\text{DATA}} = 200\mu\text{A}$
Wave shaping output duty ratio	45	50	55	%	$V_{\text{IN}}(\text{MIX}) = 60\text{dBmVEMFF}$ or single tone
Image Suppression Ratio		35		dB	
Operating Temperature Range	-40		+85	°C	

Condition: $T_a=25^\circ\text{C}$ $V_{cc}=5.0\text{V}$ Frequency=433.92MHz

Parameter	Specification			Unit	Condition
	Min	Typ.	Max		
Carrier Frequency	430	433.92	435	MHz	IF = 220kHz
Supply Voltage	3.0	5.0	5.5	V	5.0v at default
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
Frequency Deviation		±40		kHz	
-3dB Bandwidth		250		KHz	
Data Rate		1.2	9.6	Kbps	
Turn on time from sleep			3	ms	
“L” level input/output level	0		0.2	mA	
“H” level input/output level	2.6		5.5	V	
Output leak current (H level)		0	2	μA	
Output voltage (L level)			0.4	V	$I_{\text{DATA}} = 200\mu\text{A}$
Wave shaping output duty ratio	45	50	55	%	$V_{\text{IN}}(\text{MIX}) = 60\text{dBmVEMFF}$ or single tone
Image Suppression Ratio		35		dB	
Operating Temperature Range	-40		+85	°C	

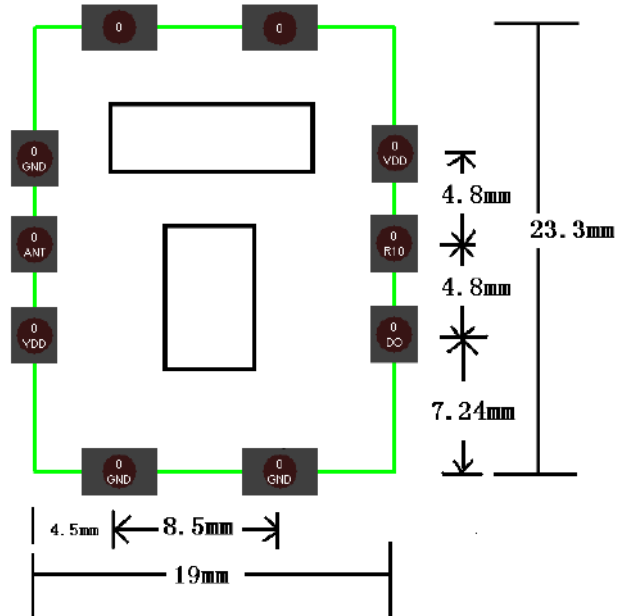
Mechanical Size: (Unit: MM)

Figure2 CY72-V3.0 Dimension

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

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