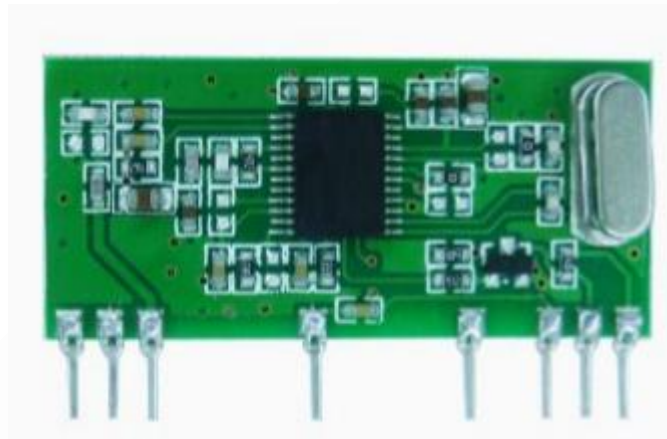


Type: ASK/OOK/FSK Super-Heterodyne Receiver Module
Model: CY78-XXX

1. DESCRIPTION:

The CY78 is an ASK/OOK/FSK compatible superhet receiver, which is designed with high sensitivity, long distance, easy use for designing; it can be able to fulfill most demands of European market.



2. FEATURES:

- ASK/OOK/FSK modulation;
- Working Frequency: 315M/433.92MHz;
- Max sensitivity: -116dBm (ASK); -115dBm(FSK);
- Supply voltage: VCC=3.6to5.5V; IF band:220KHz;
- Low power consumption: Icc=6mA (FM, Vcc=5.0V@433.92MHz);
- Wide operating temperature: -40°C ~ +85°C;
- Excellent selectivity and noise rejection;
- Easy for design and wireless applications;
- Analog RSSI Output.

3. APPLICATION:

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

4. PIN DEFINITION:

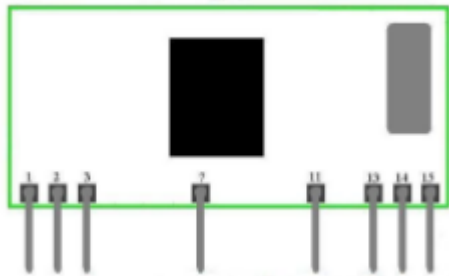


Figure1 CY78 Shape & Pins

Pin 1	N.C.	Not connected
Pin 2-7	Ground	GND
Pin 3	Antenna	Antenna input, impedance 50ohm.
Pin 11	N.C.	Not connected.
Pin13	RSSI Out – Test point	RSSI output proportional to the amplitude of the input signal.
Pin 14	Data output	Data output from the receiver.
Pin 15	+Vs	Positive Voltage supply.

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

5. ELECTRICAL CHARACTERISTICS

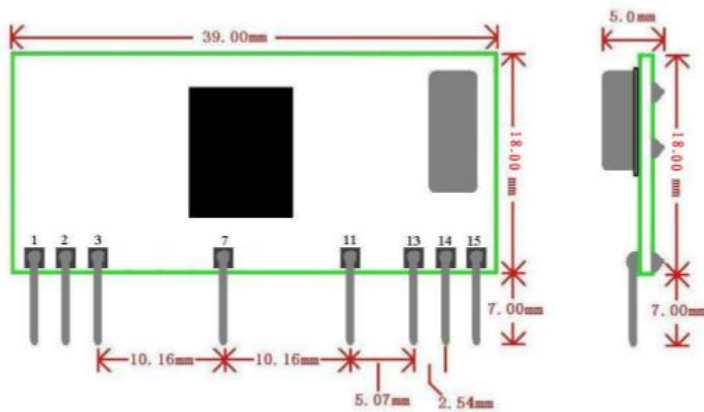
Condition: Ta=25°C Vcc=5.0V Frequency=315MHz

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	5.9	6.2	mA	FSK
	4.5	5.9	6.2		ASK
Modulation Mode	ASK/FSK				
RF sensitivity		-115	-118	dBm	600bps(Manchester), dev= ±40kHz
Frequency Deviation		±80		kHz	
-3dB Bandwidth		250		kHz	
Data rate		2.4	9.6	Kbps	
Turn on time from sleep			5	ms	
“L” level input/output level	0		0.2	V	
“H” level input/output level	2.0		5.5	V	
Output voltage (L level)			0.4	V	IDATAL = 200μA
Output leak current (H level)		0	2	μA	
Wave shaping output duty ratio	45	50	55	%	VIN (MIX) = 60dBmVEMFF or single tone
Image Suppression Ratio		35		dB	
Operating Temperature Range	-40		85	°C	

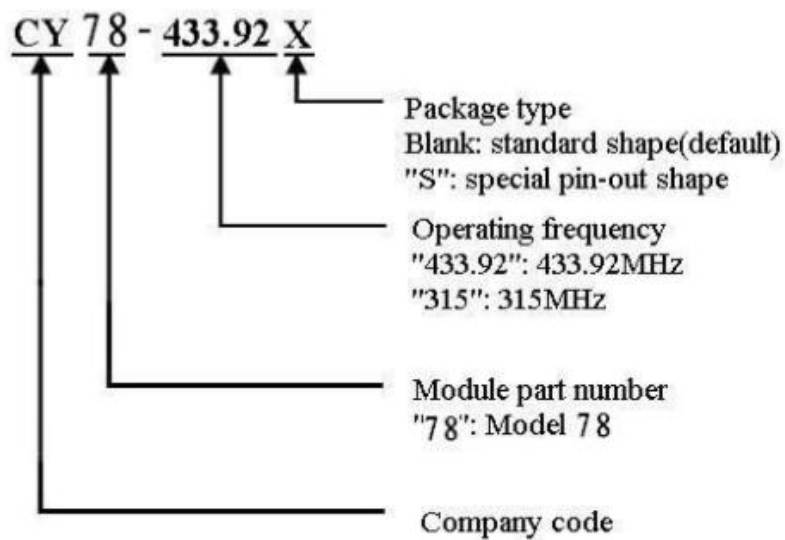
Condition: Ta=25°C Vcc=5.0V Frequency=433.92MHz

Parameter	Specification			Unit	Condition
	Min	Typ.	Max		
Carrier Frequency	430	433.92	435	MHz	IF=220kHz
Supply Voltage	3.6	5.0	5.5	V	5.0V at default
Supply Current	4.6	6.0	6.2	mA	FSK
	4.7	6.0	6.2		ASK
Modulation Mode	ASK/FSK				
RF sensitivity		-116	-118	dBm	600bps(Manchester), dev= ±40kHz
Frequency Deviation		±80		kHz	
-3dB Bandwidth		250		kHz	
Data rate		2.4	9.6	Kbps	
Turn on time from sleep			3	ms	
“L” level input/output level	0		0.2	V	
“H” level input/output level	2.0		5.5	V	
Output voltage (L level)			0.4	V	IDATAL = 200μA
Output leak current (H level)		0	2	μA	
Wave shaping output duty ratio	45	50	55	%	VIN (MIX) = 60dBmVEMFF or single tone
Image Suppression Ratio		35		dB	
Operating Temperature Range	-40		85	°C	

6. MECHANICAL SIZE: (UNIT: mm)



7. ORDER INFORMATION



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

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