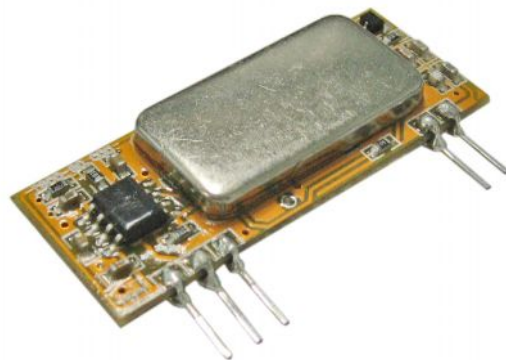


# Specification for GD-R5D Receive Module

GD-R5D is a super-heterodyne high quality receive module with VHF/UHF and wireless transmitting. The module is based upon market's feedback and a lot of customers' advice. It's shocked in the electronic products market. The module adopts LSI circuit with hi-frequency and low-noise which import from famous company of Europe. It has strong anti-static protection, high reliability and competitive price. It's widely used in remote garage door, auto-gates as retract type, GSM/GPS system, factory automatic, communication and security system etc.

## Characteristic as follows :

- ( 1 ) The sensibility up to  $-110\text{dbm}$ ; The receiving distance is twice of others'.
- ( 2 ) It has reasonable receiving band width, excellent ability of suppress coordinate frequency, strong anti-jamming, it can adapt to kinds of condition.
- ( 3 ) It has excellent ability of suppress assemble or scatter radiation, easy pass kinds of instrument.
- ( 4 ) Due to excellent shield ,it can adapt kinds of installing environment, consistency is nicer.
- ( 5 ) It has ability to restrain the radiation, can worked with several module (one transmitting module with several receiving module ), and have no interference to each other, and don't influence the receiving distance.
- ( 6 ) Adopting the SAW, the capability is immobile, and the temperature range is wide.
- ( 7 ) Frequency range is  $250\text{—}450\text{ MHz}$ , easy to adjust.
- ( 8 ) Use microprocessor directly to link, transmitting speed is up to  $20\text{kbps}$ .
- ( 9 ) Enhance the anti-jamming ability from the mobile telephone, improve decoding waveform.
- ( 10 ) Frequency :  $433 / 315\text{MHz}$ .



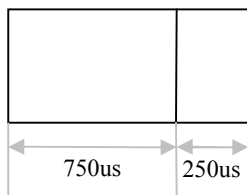
## Electronic specifications :

Parameter	Symbol	Condition	Reference data			Units
			Min	Standard	Max	
Operating frequency	Fc		315	433.92		MHz
Modulate mode			ASK			
Receiving sensitivity		50 Ohm antenna directly input BER3/1000 , 1.2kbps	-107		110	dbm
Most input unsaturated power				-10	0	dbm
Receiving band width			$\pm 120$		$\pm 1000$	KHz
Receiving unlock time	Ton				10	ms
Power source consumption	IRC	RX-EN=LOW			6.5	mA
Decoding output high-tension			4.5			V
Decoding output low-tension					0.5	V
Operating temperature	TC		-40		+80	$^{\circ}\text{C}$

GD-R5D is a remote receive module which adopt ASK transmit mode, due to the width of data signal pulse will change or

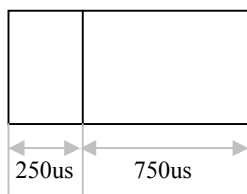
remove when it transmit, should make disposal as hereinafter in programming :

when it receive decoding, if high power lever less than 500us, can define “1”



lever.

The coding of lead can adopt “1”or “0” , the coding of incept can adopt 2ms low power



if high power lever exceed 500us, can define “0”

#### Utmost rating sheet :

Parameter	Symbol	Data	Units
DC	Vcc-Vss	6.5	V
Operating temperature range	TOPR	-40to85	°C
Storage temperature range	TSTG	-60to125	°C

#### Pin functions :

Pin	Name	Function
1	ANT	The juncture of antenna
2,3	GND	Grounding
4	RX-DATA	Decoding data output
5	VCC	Supply power

#### Order information : GD-R5D - XV - XXXXX - X

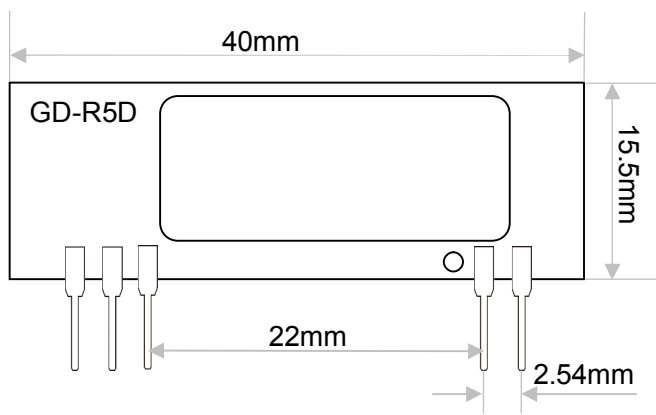
1      2      3      4

- 1 . The module's type
- 2 . Operating voltage --- ( 5V )
- 3 . Operating frequency --- ( 150---450MHz )
- 4 . Frequency's precision :    A : ±75KHz    B : ±250KHz

#### Remarks :

- ( 1 ) Offer the correct voltage, error is ±5%.
- ( 2 ) It must have one capacitor (0.01uF) between (3) pin and (5) pin.
- ( 3 ) If the system has prodigious interaction or high demand, L1,L2(L1=L2=100uh),(C1,C2=0.1uF) can reduce the interaction for the system; if it's oppsite,L1,L2,C2 may leave out.
- ( 4 ) Antenna has strong influence upon receiving effect, so had better use the antenna which is 1/4 wavelength.
- ( 5 ) Antenna's location also has influence upon receiving effect, so had better put the antenna away from the place where have shield object, high voltage and disturbance.

#### Shapes and dimensions :



**Pin wiring diagram:**

