

## FSK Radio Receiver Module

**RC-RFSK1-XXXN** is an FSK Radio Receiver Module with PLL Synthesizer and crystal oscillator. Single Line Package with power down mode. Pin to pin compatible with the version denominated RC-RFSK1-XXX.

Standard versions:

**RC-RFSK1-433N** =====> Frequency 433.92MHz  
**RC-RFSK1-868N** =====> Frequency 868.35MHz

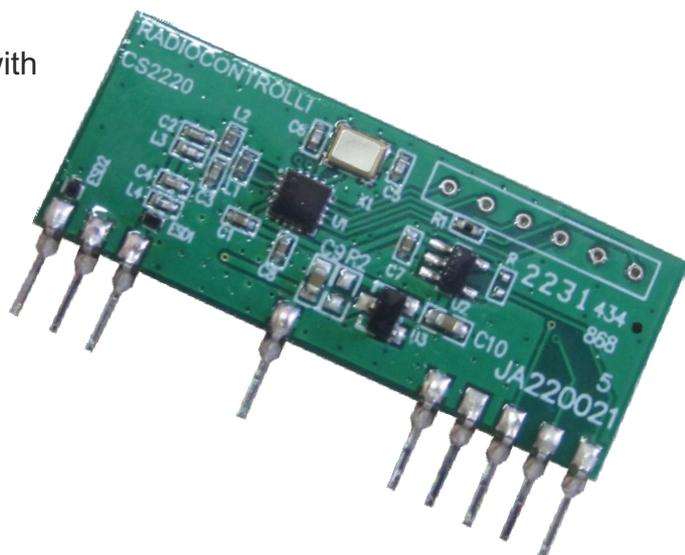
Available versions :

**RC-RFSK1-433.42N** ===> Frequency 433.42MHz  
**RC-RFSK1-434.15N** ===> Frequency 434.15MHz  
**RC-RFSK1-434.50N** ===> Frequency 434.50MHz  
**RC-RFSK1-868.95N** ===> Frequency 868.95MHz  
**RC-RFSK1-869.50N** ===> Frequency 869.50MHz

Possible versions :

**On request we can customize the frequency value :**

- *From 433.00 MHz to 435.00 MHz with step of 0,01 MHz*
- *From 867.00 MHz to 870.00 MHz with step of 0,01 MHz*



### Applications :

- Wireless security systems
- Home and building automation
- Automatic Measure Reading
- Wireless Sensor Network

### Technical Characteristics

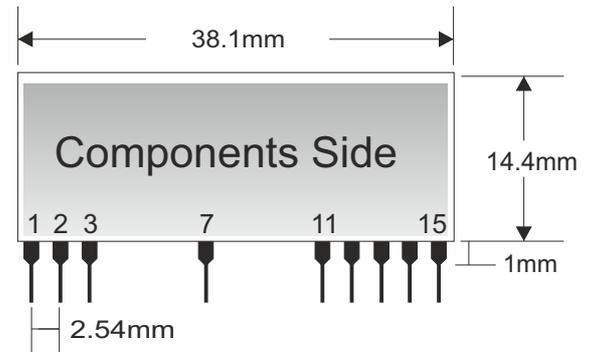
Characteristics	MIN	TYP	MAX	UNIT
V <sub>CC</sub> Supply Voltage	4.5		5.5	Vdc
I <sub>s</sub> Supply Current ( Operation mode )		8.0		mA
I <sub>s</sub> Supply Current (Shut down mode)			100	nA
F Frequency		433.92(*)		MHz
D Max Data Rate			4.8	Kbit/s
S RF Sensitivity		-118		dBm
B 3dB Bandwith		± 150		KHz
L Level of emitted spectrum			70	dBm
T Power Up Time (from Power to stable data)			8	ms
T1 Power Up Time1 (from PD to stable data)			5	ms
TE Operating Temperature Range	-20		+70	°C

(\*) Version denominated RC-RFSK1-433N

## Pin Description

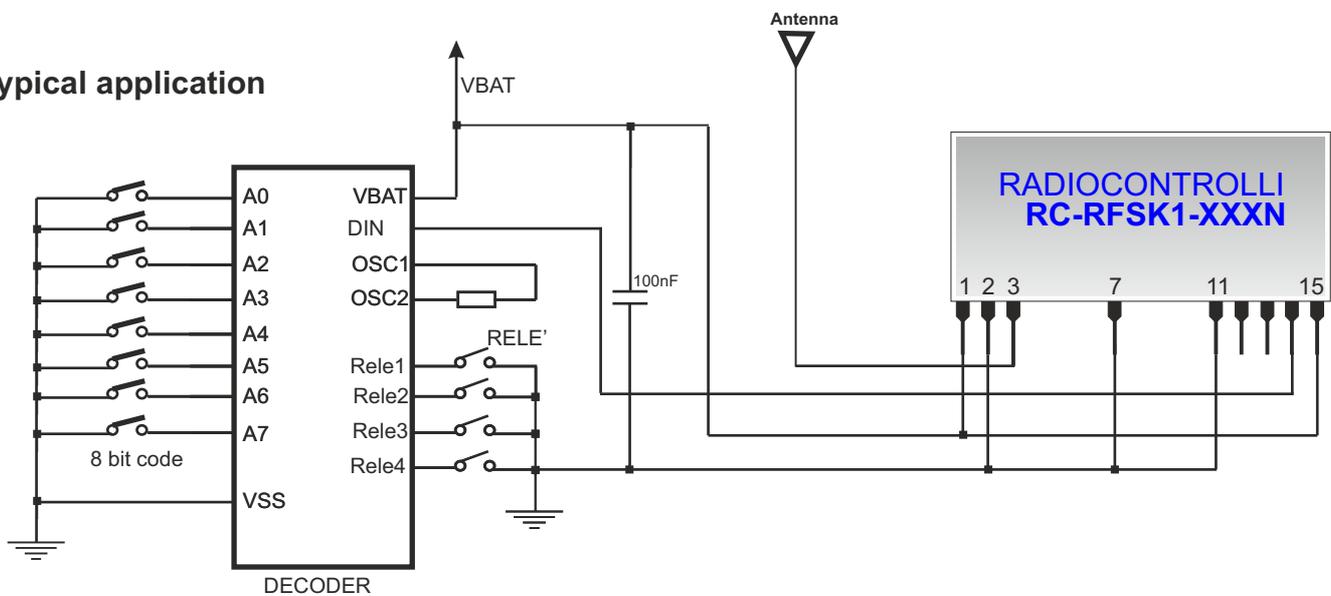
Pads	Name	Description
1	VCC	Vcc Power
2	GND	Ground
3	IN	Antenna
7	GND	Ground
11	GND	Ground
12	NC	Not connected
13	NC	Not connected
14	OUT	Data Out
15	PD	Power down

## Mechanical Dimensions



PD = LOW ----> RX OFF  
 PD = HIGH ----> RX ON

## Typical application



## Receiver Connection Guideline

- 1) The receiver module must be powered from a regulated voltage.
- 2) In proximity of the receiver module it is necessary to insert a ceramic decoupling capacitor (100nF).
- 3) The ground plane must be completely encircle the entire receiver in particular the area of the Antenna connection (we recommend a minimum of 40-50mm radius).
- 4) The 50ohm connection should be as short as possible.
- 5) For a pcb with 1.6mm thickness, the track "50ohm connection" must be 2.5mm, this track should be separated from the GND for 2mm.
- 6) On the opposite side of 50ohm connection should be a ground plane.
- 7) Keep the receiver module away from other components for more than 5mm.
- 8) Close to the 50ohm connection there must be no component at least for 5mm.

