

## 433.92MHz OOK Superhet Receiver Module

It's an OOK Superhet Data Receiver Module.  
Very Low Cost version. The main features are the following :

- 1) RF Sensibility -109dBm.
- 2) Supply Voltage from 2.0Volt to 5.5Volt
- 3) Fast Startup Time 3ms

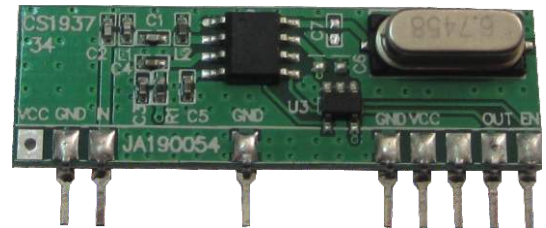
The difference between the two versions is that the RCRX2 version does not have the pin 1.

Compliant with harmonics standards:

- EN 301 489-3 : V2.1.1
- EN 300 220-2 : V3.1.1



RCRX1-434



RCRX2-434

### Technical Characteristics

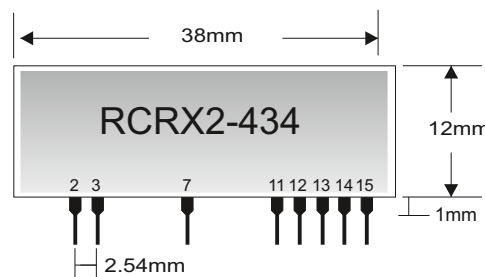
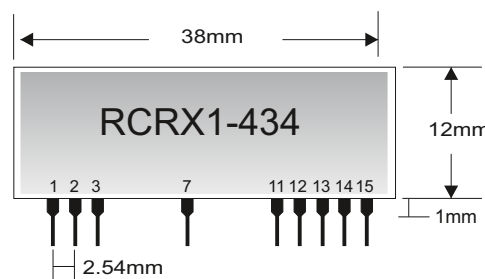
Characteristics		MIN	TYP	MAX	UNIT
V <sub>CC</sub>	Supply Voltage	2.0		5.5	VDC
I <sub>S</sub>	Supply Current (RX mode 3.3Volt)		3.0		mA
I <sub>S</sub>	Supply Current (RX mode 5.0Volt)		3.5		mA
I <sub>sh</sub>	Current Consumption (Shut down mode)		0.01		µA
S	RF Sensitivity		-109		dBm
D	Max Data Rate		10		Kbit/s
T	Power Up Time (from Power to stable data)			4	ms
T1	Power Up Time1 (from EN to stable data)			3	ms
B	RF Bandwidth 3dB		±300		KHz
T	Operating Temperature Range	-20		+80	°C

### Pin out :

Pads	Name	Description
1	VCC	VCC (RCRX1-434)
2	GND	Ground
3	IN	Antenna
7	GND	Ground
11	GND	Ground
12	VCC	VCC
13	----	Not Used
14	OUT	Data Out
15	EN	Enable

EN = 0V ----> RX OFF  
EN = 5V ----> RX ON

### Mechanical Dimension :

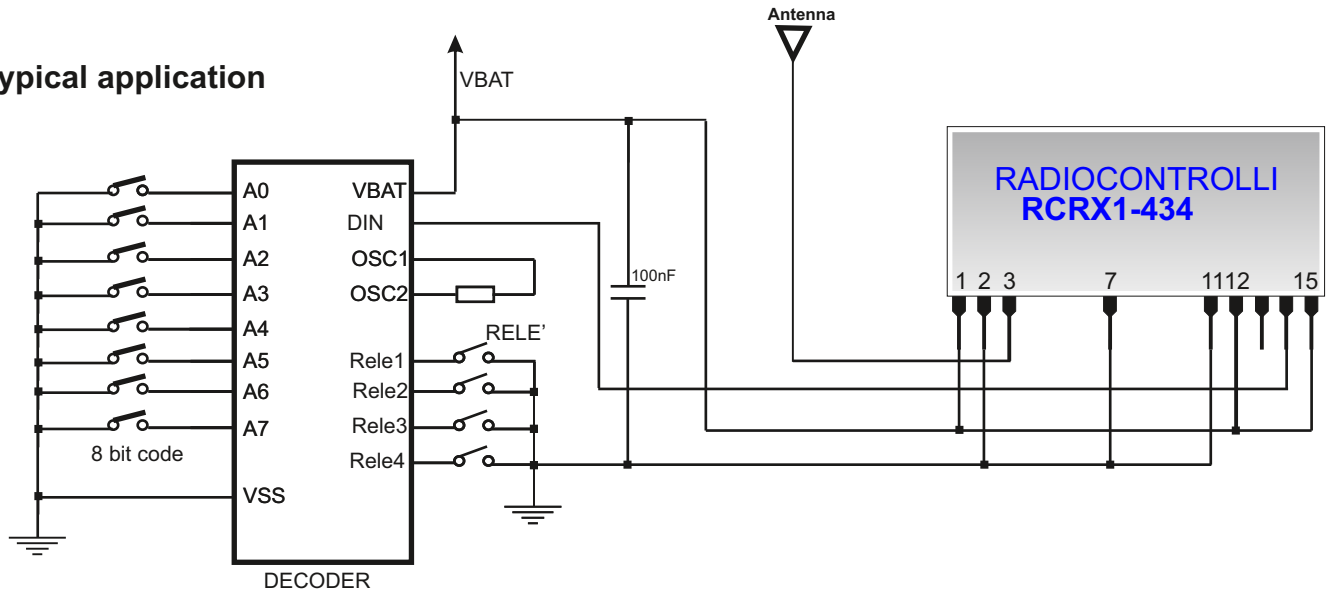


### Applications :

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

**ETSI EN 300 220  
COMPLIANCE**

### 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.

