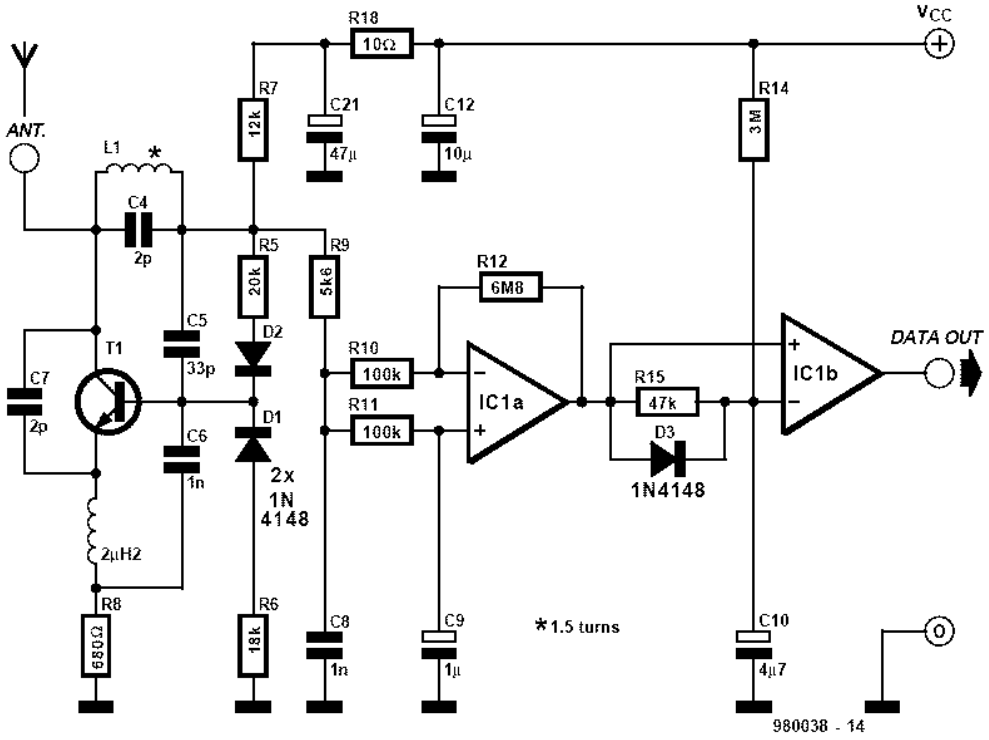
- **Types of Modulation used in RF remote control:**

1-Amplitude Shift Keying

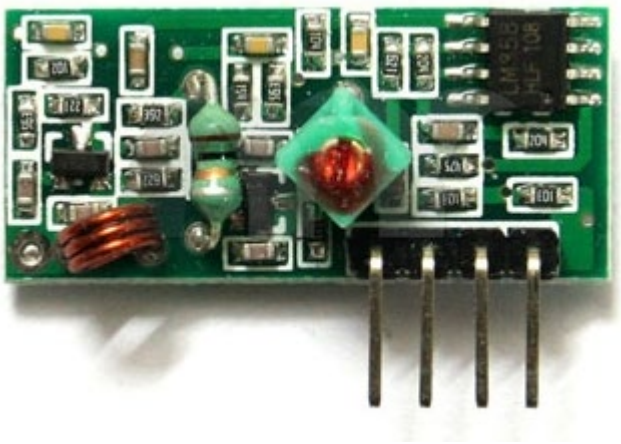
2- Frequancy Shift Keying

- **Types of Reciever used with Rf remote control:**

super regenerative:

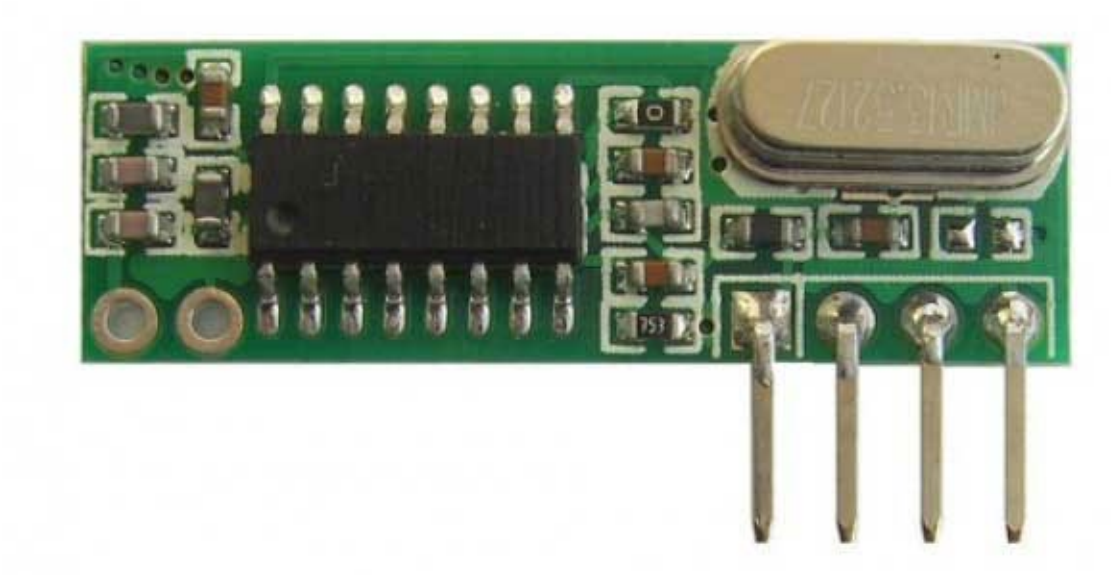


This circuit is a transistorized circuit with low sensitivity, accuracy and price. This receiver needs 55 volts as operating voltage with 1 or 0 as outputs, but environmental noise can affect it a lot (picture below).



Super Hytrodyne:

The newer one is a super heterodyne receiver with more complex circuit for demodulating data which uses quartz crystal, so it has good receiving quality and accuracy.



Transimission Frequancy used with RF remote control:

The frequency used by the radio remote control is 433Mhz or 315Mhz, also referred to as 433 remote control and 315 remote control. The wireless remote control uses the nationally prescribed open frequency band. In this frequency band, the transmission power is less than 10mW and the coverage is less than 100m or If it does not exceed the scope of this unit, it can be used freely without having to go through the approval of the Radio Management Committee.

Chinese open frequency band is 315Mhz.

Europe and the United States and other countries are 433Mhz. there is also 868 Mhz .

example on receiver specs sheet:

12/24V outdoor receiver

433.92 - 868.30 MHz
Personal Pass / Royal

PLUS

- Operates with Royal or Personal Pass series transmitters: the first remote control to be memorised determines the mode of operation; Royal or Personal Pass
- 433.92 MHz and 868.30 MHz version
- 1, 2 and 4 channel version
- Monostable, bistable or timer operating logic
- Possibility to store up to 1008 different codes
- Sequential storage of transmitters
- Memory full warning
- Self-learning of transmitters managed by radio
- Management of the replacement transmitter
- It is possible to enable or disable the ROLLING CODE mode
- Basic programming using button P1 or advanced programming using the PROG2 programming device and WINPPCL software
- Plug-in terminal board

TECHNICAL FEATURES

MODEL	WALLY1-U-433	WALLY2-U-433	WALLY4-U-433	WALLY1-U-868	WALLY2-U-868	WALLY4-U-868
CODE	11G050	11G051	11G052	11G053	11G054	11G055
Frequency (MHz)	433.92	433.92	433.92	868.30	868.30	868.30
Channels	1	2	4	1	2	4
Power supply	12 - 24 Vac / 12 - 36 Vdc					
Absorption in stand-by (mA)	16 @ 24 Vdc					
Relay contacts (A)	1 @ 30 Vdc					
Sensibility	≥ -103 dBm					
S/N	> 17dB @ 100dBm rm=100%					
Working temperature (°C)	-20 ÷ +60°C					
Protection degree (IP)	55					
Dimensions (mm)	132 x 26 x 74					