

Basic description about the device:

The RF module both the plane and controller are XN297L which with one external crystal 16MHz. It has the function of GFSK modulation/demodulation and amplification the RF signal.

Operating frequency range from 2407Mhz to 2471Mhz with 65 channels. The plane will send signals to the controller for pairing only when it power on. The plane will keep in the receiving mode once they are pairing ok, it also not emission signal anymore.

Antenna Type: Integrated antenna

Antenna gain: 0dBi

Demodulation Mode is GFSK

The power supply is battery 9v for controller and 3.7v chargeable battery for plane.

The max operation Field Strength of the device is about 96 dB μ V/m

RF circuit description for controller and plane:

When user operates the joystick, the detector circuit will catch the variations of voltage and be decoded by MCU U3. U3 will send the decoded data from pin2&pin3&pin5 of the MCU to RF chip XN297 for GFSK modulation and amplification for transmitting out by 2.4G antenna and control the plane action.

For the receiver circuit is similar with the transmitter. The signal will be received by antenna of the plane, and into the XN297L via Pin 8

for internal amplifier and then demodulation. The components C10,C20, L2 are the matching net for antenna The demodulated signal will send to MCU for decode and driving motor run.