

Circuit Description

Transmitter Unit

Q307.Q308.(2SC4901)D303(1SV214)L315 compose the VCO and PLL(TB31202), which controlled by MCU to adjust the crystal frequency at 462Mhz. The amplified signal is then amplified by the power amplifier 2SK3078 which supplied by DC 3.7V to create RF power through the antenna.

Receiver Unit

After the signal which received by the antenna filtered by L301, C301, it is amplified through the C303 and Q304 coupling. Then, it pass the 465Mhz filter and mixed out the first IF : 21.4 MHz. by Q306. and The first IF signal is then fed through the 21.4MHz crystal filter and Q310 to amplify, and input the IC (MC3361), which has its local oscillator 20.95MHz, after the mix, the signal generate a 450KHz second IF signal, and output the data and signal through the 9th Pin.