

CIRCUIT DESCRIPTION

TRANSMITTER SECTION

Frequency Determining and Stabilizing Circuit

MCU(U1) output a data signal to R6, the Primary resonant network consists of Q2, R3, C3, C4, L3 and X1. Thereinto, X1 is a SAW resonator (Surface-Acoustic-Wave), to stabilize surging frequency; Q2, R3, C3, C 4 and L3 supply surging condition.

RF Amplification:

The power of the primary output is low, the second level amplify RF signal and output. The RF amplification network consists of Q1, R1, C5, L2, C2, C2, C1 and L1. The C8 is a coupling capacitance. Thereinto, L4 is a transmitter antenna, C1 is a tuning capacitance.

Modulation:

The MCU export data signal, the circuit adopt OOK modulating mode.

About 60S per transmit cycle, the rain collector transmit information to the main unit.

It cost 0.7S to transmit the data information by the rain collector unit.