

Technical Description of the Circuit:

The circuit is a RF thermometer & hygrometer transmitter part, the MCU TM8712 will measure the temperature & relative humidity and code the data. Afterward, the data is transferred to the RF circuit which is a SAW stabilized Colpitts Oscillator (Constructed by Q1, L1, L2, C1, C2, C3, C4, C5, R1, R3 and X1) every 3 minutes, when the Data pin output HIGH level to the oscillator, the oscillator is turned on and output 434MHz RF signal, when the Data pin output LOW level to the oscillator, the oscillator is turned off and this ON & OFF process modulate the code data into 434MHz with ON OFF KEYING.

Also there is an antenna matching network (Constructed by C7, C8, L3 and L4) after the SAW stabilized Colpitts Oscillator, this network suppress harmonic and spurious also match the Oscillator to the antenna.