

Operational description

The EUT is a RF thermometer transmitter operating at 433.92MHz. The MCU (U1) will measure the temperature through sensor (TH) and encode the data. Its operating frequency is 32.768 kHz and the oscillation is generated from crystal (X1 32.768kHz). Then the data is sent to the modulator circuit which is a SAW stabilized Colpitts Oscillator (Q1, C2, C4, C5, C6, R1, R3, X1 433.92MHz). When the RF DATA pin output HIGH level to the oscillator, the oscillator is turned on and output 433.92MHz RF signal. When the RF DATA pin output LOW level to the oscillator, the oscillator is turned off. This ON/OFF process modulates the coded data on the 433.92MHz carrier with ON-OFF keying.