

Circuit Description, Model: 74320 outdoor Thermometer

The Outdoor thermometer is a MCU controlled transmitter working at 433MHz, Powered by 2 pcs AAA battery. The circuit of outdoor thermometer has 3 main parts, MCU circuit, user interface and transmitter

MCU

The MCU (MI2205 433MHz Tx) is the heart of Outdoor thermometer, The system clock is control by (32.768KHz) crystal. The MCU will decode incoming signal from pin 14(R7 thermometer sensor) send periodic signal via pin 23-26, It will switch on/off the transmitter hardware via pin 10.

Transmitter

The oscillator (Q30) working at 433MHz is controlled by a SAW resonator, the output is coupled to output amplifier (Q31). A band-pass filter (C39, C40, L32 and C41) is placed between the output amplifier (Q31) and the built-in antenna. The RF signal is generated when the positive (refer to ground) part of an encoded pulse. A pulse width modulation RF signal is being sent.