

Technical Description of the Circuit:

The circuit is a RF thermometer transmitter part, the MCU S1M62N51 will measure the temperature and code the data. Afterward, the data is transferred to the RF circuit, it is a fully integrated IC based OOK transmitter, the IC U2745B include a VCO, PLL and a power amplifier circuit. The IC U2745B will generate the frequency by the VCO and the PLL, the frequency is controlled by the reference crystal frequency, the reference frequency is 13.56MHz, then the PLL will multiple the frequency by 32 and it will generate the 433.92MHz. When the data from the MCU S1M62N51 transferred to the RF IC is high, it will turn on the power amplifier inside the IC U2745B and the IC U2745B will output the 433.92MHz. If the data transferred is low, it will turn off the power amplifier and the IC U2745B will not output the RF signal. Also there is a low pass filter at the output stage of the RF IC U2745B transmitter, it will suppress the harmonic and spurious emission.



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Model 6720/1 (Transmitter)

This unit is powered by 2 AA size batteries, once you insert the batteries into the unit, it will start to operate. You can find two buttons on the back of the unit, they are C/F and reset, once you press the C/F button, the readout of the current temperature shown on the front LCD will toggle between Centigrade and Fahrenheit. After power up, the unit will get the temperature and send the reading to the Receiver, the transmitter will update the temperature for every 15~45 seconds, and the transmitter will transmit the most update data to the receiver at 3 minutes interval. For the reset button, once you press the reset button, it will reset the transmitter.

For 6721 which without LCD, there is not C/F button since it does not work with product without LCD.