

3.1 The Circuit Description

The system has five parts: the power supply, the TX module, the battery detector, the micro-controller and the indication circuit.

****The Power circuit***

The unit uses two button cell batteries CR2032 that have 6V DC power. The voltage of 6V directly supply the TX module for transmitting the radio-frequency. The other circuits all use the 3V DC power from the regulator U2(HT7130A). The other components are C1-4.

****The TX Module***

This module works in ASK mode at center frequency 433.92MHz. It has two functions of modulating and transmitting.

****The Battery Detect Circuit***

The unit can detect the voltage of battery and send signal to MCU when battery be low. This circuit includes R3-6, Q1.

****The MCU and Keyboard***

The core of unit is the micro-controller EM78P153 can processes all signals from any peripherals and executes all control functions. The keyboard is input-set for user.

****The indication***

All states of working will be indicated by LED1, that controlled by micro-controller.