Wireless Magnetic Sensor (600WR)

This product design for home or office safe protect system/ subsystem, it detect vibration and window/door open trigger through radio frequency link to T018/T016/T015 system.

Schematic description

- Vibration detect circuitry: mechanical vibration switch to complete sense the mechanical vibrate, and through R15, Q4, R1 amplify then trigger MCU to send a RF signal link the system and let the system process.
- Magnetic sensor circuitry: magnetic switch detect window or door from close to open then through D2, C8, C4, R15 as small signal integral process and trigger the MCU to send a RF signal link the system.
- Data modulation and base oscillator: L1, C1, C2, C3, R1, Q1, R2, R3 complete radio frequency oscillator, SAW1 (SAW resonator) control and regulate the oscillate frequency to 433.92MHZ +/- 75K, from MCU data signal through R1 control radio frequency generate ASK modulation, L2, C4, L3, R4, L5, Z2 to complete 50 ohm antenna matching.
- Battery low detect: Q2, R8, Q1, R6, R7, R11 complete battery voltage compare and detect, when the battery low MCU will enable indicate BAT. LOW LED flashes and sends the signal to system.
- Power supply circuitry: battery though regulator IC (HT7130) generate 3.0V voltage supply MCU and other circumjacent working.
- Local Alarm: Q3, R12, L1 to complete local siren amplify and through Buzzer to generate alarm sound.
- MCU: MCU1 (78P153) composing signal process and control center.