FCC ID: RF7WR-3

WR-3 Wireless Alarm Receiver
Principle of operation

The WR-3 Alarm Receiver is a wireless receiver to monitor alarm signals generated by WT-2, WP-2 and WFM-1 alarm transmitters. It also provides both audio and visual indications to tell which transmitter in one of the sixteen programmed locations is sending the alarm.

The RF circuit is embedded inside a ChipCon CC1000 RF transceiver chip. The chip is programmed to work at 915Mhz ISM band and data rate is approximately 1K baud. DATA is encoded in Manchester format. The logic functions are controlled by a Holtek HT46R23 micro controller unit (MCU) which communicates with the RF chip via IIC bus.

Besides receiving emergency alarms, the WR-2 also sends out polling signals to individual transmitter to check that they are within the RF communication range. If an alarm transmitter does not response to polling signal for longer than 1 minute, the WR-3 will generate an audio tone to alert that the transmitter is probably out of the communication range. The LED location representing the ID of the Transmitter will flash to indicate which transmitter is loosing the signal