FCC ID: M5ZCNT

Operational description of the Wireless Sensor, Model Point Sensor Counter/Temperature

Description of the circuit functions, ground system and antenna of the Point Six Point Sensor Counter/Temperature Wireless transmitter:

The Point Sensor Counter/Temperature wireless Counter/Temperature sensor is a lithium battery operated, microprocessor based, 418 MHz. transmitter that transmits both digital temperature data, a unique 64-bit serial number and counter data. The microprocessor is brought up from a power down state every second by a DS2417 time of day clock interrupt output. Counter data is taken from either a DS2423 or a reed switch. The temperature is measured with a DS18B20 digital temperature sensor, which has a unique 64-bit serial number that can be read by the microprocessor. The microprocessor counts the 1-second interrupt cycles from the DS2417 clock until the transmit period has expired. The microprocessor then reads the temperature from the previous temperature conversion, combines it with the serial number and counter data and transmits the entire data packet serially with a Linx Technologies TXM-418-LC-R 418 MHz. Transmitter module. The microprocessor then starts another temperature conversion cycle and powers down into a quiescent state to wait for the next interrupt from the DS2417 clock.

The PC board bottom layer is a ground plane and the antenna is a 1/4-wave loop that has been etched in PC board material and placed into the ABS enclosures cover. The entire electronics is coated with conformal coating to protect it from condensation.