

## **FCC ID: M5ZVMEZIO**

Operational description of the 418 MHz. battery operated vibration/motion sensor.

### **Description of the circuit functions, ground system and antenna of the Vibration/Motion Wireless transmitter**

The Point Six Vibration/Motion Wireless transmitter is a lithium battery operated, microprocessor based, 418 MHz. transmitter that transmits vibration or motion data and a unique 30-bit serial number. The microprocessor is brought up from a power down state every 1/60 second by an internal timer in the microprocessor. The processor calculates a random number that is added to a base number resulting in a period that is always greater than 10 seconds and less than 17 seconds. When this time has expired the microprocessor gathers data from either a vibration sensor using an analog to digital converter or the on board temperature/humidity sensor. The microprocessor converts this information to digital data and then combines the data and with the serial number data from an onboard stored unique serial number and then transmits the entire data packet serially with a Linx Technologies TXM-418-LC-R 418 MHz. Transmitter module. The microprocessor then powers down into a quiescent state to wait for the next interrupt from the on board timer.

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.