FCC ID: M5ZWOWPRES

Operational description of the Wireless Pressure Sensor, Model WOWPRES

Description of the circuit functions, ground system and antenna of the Point Six, WOWPRES Wireless transmitter

The WOWPRES wireless pressure data transmitter is a lithium battery operated, microprocessor based, 418 MHz. transmitter that transmits both pressure data and a unique 64-bit serial number. The microprocessor is brought up from a power down state every 4 seconds by a DS2417 time of day clock interrupt output. Analog data are taken from a 12-bit ADC. The DS18B20 digital temperature sensor has a unique 64-bit serial number that can be read by the microprocessor. The microprocessor counts the 4-second interrupt cycles from the DS2417 clock until the transmit period has expired. The microprocessor then reads the pressure value from the ADC, combines it with the serial number and 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 DS2417 clock.

The PC board bottom layer is a ground plane and the antenna is a 1/4-wave loop that has been hot upset into the ABS cover to form a spiral. The entire electronics is coated with a rubber conformal coating to protect it from condensation. The ground plane (bottom layer) is not coated.