Operational description of the Point Six Wireless Sensor, Model WOWPIR

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

The WOWPIR wireless personal iButton reader and transmitter is a lithium battery operated microprocessor based 418 MHz. transmitter that transmits a unique 64-bit serial number from a touched iButton and a 16-bit serial number from the PIR.   The microprocessor is brought up from a power down state touching the iButton to be read. The unique 64-bit serial number is read by the microprocessor.   The microprocessor combines the iButton serial number with the serial number of the PIR 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 iButton touch.

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 electronics is coated with a rubber conformal coating to protect it from condensation. The ground plane (bottom layer) is not coated.