TPMS Transmitter (Sensor Module) Operation Description

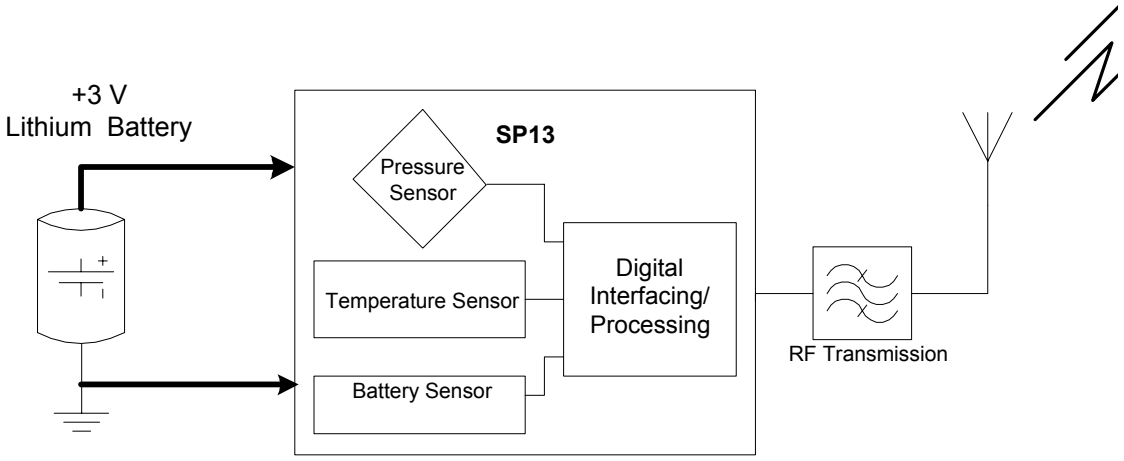

Fig 1.0 Transmitter (Sensor Module) Block Diagram

The transmitter (Sensor Module) operates with 3.0V lithium cell battery. SP13 pressure sensor will performs the pressure and Temperature measurement and at the same time monitoring the battery level. The measured data will than be process and transmit out with data rate of 10Kbit/sec to the RF transmitter circuit. The transmitter circuit consists of a 433.92MHz saw resonator, UHF wideband transistor and a helical antenna. The data will be modulated out with the center frequency of 434MHz.

The circuit has very low power consumption with the supply of 3.0V. Current consumption during transmission is approximately 0.15mA at a 50% duty cycle modulation. During standby mode the transmitter will drawn current less than 10uA.