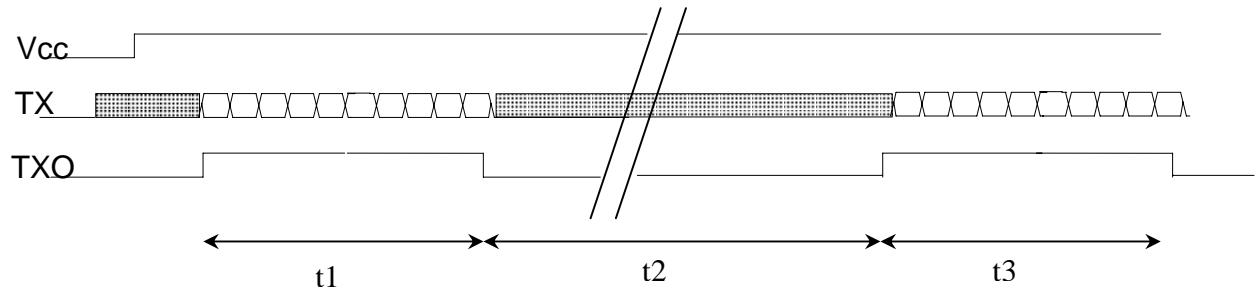


TPMS Transmitter (Sensor Module) Operation Description

The transmitter (Sensor Module) operates with 3.0V lithium cell battery. SP13 pressure sensor will performs the pressure and Temperature measurement, and the measured data will than pass to the microcontroller for processing. The controller processes the sensor data and than transmit out with data rate of 10Kbit/sec to the RF transmitter circuit. The transmitter circuit consists of a 315MHz saw resonator, UHF wideband transistor and a helical antenna. The data will be modulated out with the center frequency of 315MHz.

The circuit has very low power consumption with the supply of 3.0V. Current consumption is approximately 0.8mA at a 50% duty cycle modulation. During standby mode the transmitter will drawn current less than 0.1mA.

TPMS Transmitter Timing Diagram



Parameter		Units	Specification		Ambient conditions	
			Min	Max	Temperature (°C)	Supply voltage (Vcc)
t1	Transmission Frame	ms	40	45	-40 to +125	2.4 – 3.5
t2	Time to Second Transmission	s	50	58	-40 to +125	2.4 – 3.5
t3	Transmission Frame	ms	40	45	-40 to +125	2.4 – 3.5