

February 06, 2013

TEE
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RE: Certification for Chrysler MY2014 KL/DS Sensor
FCC ID: GQ4-61T
Canada IC: 1470A-42T
Model #: 68157568AA, 68186572AA, 68186575AA

PRINCIPLES OF CIRCUIT OPERATION

The sensor incorporates an ASIC to measure the parameters within the tire. The ASIC then outputs the measured data in digital pulses. The digital data is frequency modulated. The transmitted signal uses Frequency Shift Keying (FSK). The carrier frequency of the sensor is 434 MHz typically. The worst case frequency shift of the carrier is 433.8615MHz for the low frequency and 433.9908MHz for the high frequency shift. The receiver bandwidth must be wide enough to pass the transmitter worst case frequency shifts. Reference Block Diagram in Exhibit 04.