

The GM07 transmitter will be used on the GMX222, GMX265, GMX272 and GMT900 vehicles.

1. Frequency

The carrier centre frequency is 315MHz. The frequency tolerance is +/-75kHz.

2. Protocol

The modulation is Amplitude Shift Keying (ASK). It is Manchester encoding with a 50% duty cycle.

3. Temperature

There must be full transmitter operation between -40°C and +85°C. The temperature range must not cause frequency, power and bit width to exceed the limits. The transmitter must be able to withstand an excursion to 125°C for up to 1 hour. Full operation must be restored on return to normal operation temperature range.

4. Operation

There are three states for the transmitter – off mode, factory mode and normal mode. The transmitter goes into factory mode from off mode with a LF activation or a pressure delta. The transmitter transmits every 30 seconds in factory mode when motion is detected. After 15 transmissions the transmitter goes into normal mode. Motion is detected using a shock sensor. In normal mode there is a pressure transmission every minute during motion.

Description of Operations

FCC ID: MRXGM07AMSS

IC: 2546A-GM07AMSS

Consumer Use Modes	Manufacturing & Service Modes	Mode of Operation	Explanation	Frequency of Transmission
X		Roll Mode (Drive Mode)	Transmitter in normal operation – wheel is rotating and shock sensor detects motion	6 words every 60 seconds
	X	Learn Mode	Transmits after LF transponder activation or when sensor exits Off Mode due to pressure delta	16 words whenever LF activation occurs
	X	Factory Mode	Transmitter is in Factory Mode for the next 15 or fewer shock sensor motion detects after a learn activation. The wheel has to be rotating	6 words every 30 seconds
X	X	Stationary Mode	Transmitter enters mode after Factory Mode or Drive Mode – wheel is not rotating – vehicle is stopped	No transmission
X	X	Off Mode	Transmits when sensor transitions to Off Mode	6 words on mode change
X		Low Battery Mode	Transmits as normal with low battery bit set	6 words when low battery occurs in Roll Mode
X		Re-measure Mode	Transmits when a pressure delta is detected	6 words when pressure delta occurs
X	X	Sleep Mode	All of the time between other modes	No transmission