

BCS Automotive Interface Solutions
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Department
RF Engineering

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Certification for Toyota MY20 550B TPMS / Smart Integrated Receiver

Model #: 338721
FCC ID: GQ4-51R

General Description

The TPMS / Smart Integrated Receiver is used to demodulate and decode information transmitted from the wheel-mounted Tire Pressure Monitoring (TPM) sensors and Smart Entry Fob transmitters. This information is, in turn, sent to Body Control Module. The receiver communicates tire pressure status and smart entry information to the Body Control Module and Smart Entry Certification Module via vehicle communication bus. The receiver shall be able to perform diagnostics on the TPM System to determine if the system needs to be serviced in TPM Mode.

When the vehicle ignition power is turned on, the receiver switches from Smart Entry Mode to TPM Mode. In TPM Mode, the receiver receives and processes the RF transmission data packet (314.98 MHz, FSK modulated) from TPM sensors. The receiver will warn the vehicle driver with a warning light of low tire pressure conditions at different pressure levels based on the vehicle placard pressure levels through Body Control Module.

When the vehicle ignition is turned off, the receiver switches from TPM Mode to Smart Entry Mode. In Smart Entry Mode, the receiver receives and processes the RF transmission data packet (314.35 MHz and 312.10 MHz, FSK modulated) from Smart Entry Fob transmitters. Then the demodulated data is sent to Smart Entry Certification Module to determine the vehicle body control functions such as locking and unlocking the vehicle doors.

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