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RE: Certification for Chrysler RFHM PE Internal/External Antenna 434MHz with Multiple LF Antennas

Model #: 229145-103, -105, -106, -107, -109, -110, -112, -118, -119
FCC ID: GQ4-55T
Canada IC: 1470A-36T

GENERAL DESCRIPTION

The RFHM receiver is used to demodulate and decode RF transmissions from the up to 8 Remote Keyless Entry transmitters (Fobiks).

The RFHM has capability to transmit a Low Frequency (LF) (125KHz) modulated signal via up to 5 different antenna. Fault logic in the RFHM limits the LF transmission to only on antenna at a time. The limited range of the LF transmission allow the RFHM to force a Fobik to transmit if the Fobik is relatively close (~2m) to the LF transmitting antenna. Depending on the configuration of the vehicle, 0 to 5 LF antenna may not be populated on the RFHM.

The RFHM communicates with other ECU's in the vehicle via a 500kHz CAN-B bus.

The RFHM communicates with the ignition module via a LIN2 bus.

The RFHM has provisions for up to 5 discrete inputs and 4 discrete outputs. These I/O are very low frequency (eg. transition only on ignition on/off), and vary wetting current between 10mA and 5A. Depending on the configuration of the vehicle, 0 to 4 discrete outputs and/or 0 to 3 discrete outputs may not be populated on the RFHM.

The RFHM has provisions to interface with up to 5 door handle devices. The RFHM supplies power to the devices through an 82ohm impedance. The door handle devices modulate the pull-down impedance to transfer information to the RFHM.

There are a total of 10 part numbers containing the LF transmitter employed here. They vary as follows.

Part Number 229145-109 is a fully populated module with external antenna connector. Part Number 229145-110 is a fully populated module with an internal antenna. Part Numbers 229145-103, 229145-105, 229145-106, 229145-107, 229145-112, 229145-118 and 229145-119 have various digital functionality depopulated or turned off in software.