

Re: Certification for Visteon
Superregenerative Receiver
Model: YL8F-14B205
PN: YL8F-14B205-AA
FCC ID: NT8-14B205-U204
CANADA: to be provided by IC

U204 GEM

1.1 Product Family Description

The U204 GEM module is a multiple function, single point, body electronics control module. The highest content module provides 10 features including: Remote keyless entry, power door lock control including two stage unlock for the US market and double lock for the European market, headlamp control including headlamp delay, TNS (parking, license, and other small lamps) control, door ajar status data collection, interior lamp control with PWM dimming, perimeter alarm, battery saver, rear wiper control, and delayed accessory control. Several markets require modules with a subset of these features.

1.2 Theory of Operation

The GEM module is designed to interpret a variety of input conditions characterized by distinct electrical states and to present a unique set of electrical output states within a prescribed time. In addition, the module can accept serialized RF data to initiate certain output states for the door lock, interior lamp and perimeter alarm functions. Electrical input states are described by the status of switched inputs and output states are translated into vehicle functions through a combination of relays lamps and motors.

This translation of inputs to outputs is accomplished through the use of a Texas Instruments TMS 370 series microprocessor and peripheral electronics. Software resident within the microprocessor defines all states and configures the module as an application specific 'state machine'. Testing of the module should center around the establishment of states, detection of erroneous state transitions, and detection of potential failure to change state.

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