

# **Technical Information**

**Siemens VDO**

**Limhome Module**

**GM Easy Key Active Antenna**

## General Product Information

### Design Location:

Siemens VDO Automotive  
4685 Investment Drive  
Troy, MI 48098

### Manufactured Location:

Siemens VDO S.A. de C.V.  
Camino a la Tijera # 3  
Km 3.5 Carretera Guadalajara-Morelia  
C.P. 45640 Mpio. Tlajomulco de Zúñiga, Jalisco  
Mexico

### Device ID:

GM Easy Key Active Antenna ID: 5WY7155  
FCC ID: M3N-65981421  
IC: 267F-65981421

## General Description

The Easy Key Active Antenna is a self contained LF transceiver. The module contains I/O for 12V power, ground, data, and data clock signal. Internally, the device contains a 5V regulator, data I/O circuitry, a PCB trace antenna, and a micro with integrated LF drivers. The device operates using a 4MHz crystal which is divided down to 125 KHz for LF communication.

The Active Antenna communicates with a transponder through absorption modulation. The Active Antenna transmits data through an ASK modulated 125 KHz field. The transponder communicates back to the Active Antenna by dampening the field.

## Power Supply

The Active Antenna is powered by an external control module. An onboard regulator supplies 5V to the LF Driver and Logic circuits. This regulator also provides over current, over voltage, and over heating protection.

## Technical Data

Carrier Frequency:	125kHz +/- 2kHz
Output Power:	$\omega$ -33dBuV/m @ 300m
Modulation Type:	ASK
Method of Generation:	Microcontroller
Number of Channels:	1
Power Supply:	Vehicle battery (through ECU)
Transmission Range:	<25mm