

GateKeeper



Overview

GateKeeper is a J1850/CAN-C gateway for use in the development of vehicles with both CAN and legacy J1850 bus systems. The GateKeeper module translates between two or more different buses, thus allowing communication between all modules on a vehicle.

Features

- 500KHz CAN-C and J1850 buses (standard)
- 83.3KHz CAN-B and second CAN-C buses (optional)
- Four LEDs to indicate the presence of bus traffic
- I/O status box interface
- RS-232 interface for flash re-programmability
- DBC-file based CAN messages
- Ability to enable or disable transmit messages via the J2190 protocol
- All required interconnecting cables

Benefits

GateKeeper is the ideal solution for vehicle manufacturers and suppliers who are engaged in the development of vehicles in which hybrid buses exist. GateKeeper can be used to test one or more CAN modules in a J1850-based vehicle. Likewise, GateKeeper can be used to test one or more J1850 modules in a CAN-based vehicle.

The optional lower speed CAN-B bus can be used as new CAN body control modules are developed. The optional second CAN-C port can be used as an interface to the vehicle diagnostic connector.

Flash re-programmability allows the user to easily implement software updates supplied by DEC. The user can also enable or disable bus transmit messages by using the J2190 protocol.

Software

The Barracuda (Star 12) MCU was used because of its multi-bus I/O structure and 25MHz processing speed. The Vector Interaction Layer or OS, CAN Drivers and CANoe tools were used in software development. A custom J1850 Driver was developed by DEC to accommodate the legacy bus.

DEC is able to customize the GateKeeper software to meet customer requirements for specific applications. Updates and custom enhancements can be loaded via a RS-232 serial port and a flash programming voltage cable, which are provided.

Operating Environment

- -40 °C to +85 °C Operation
- 9V to 16V Operation (200 ma typical)
- 1.5" x 4" x 6" Metal Housing

