



DGE Inc.

## Bluetooth Gateway Module

### Features and Specs

- Access to two simultaneous CAN channels (i.e. 1x high speed and 1x single wire)
- Transmit both periodic and one-shot messages, under Bluetooth control.
- Standard Bluetooth Serial Port Profile to allow connection to smart phones, laptops, tablets, PDAs, etc.
- Bluetooth Class 1 device
- Reprogrammable via Bluetooth for easy updating in the field
- Three status LEDs
- Lower power sleep mode
- Standard automotive J1962 connector
- Standard automotive interior operating temperature range: -40 °C to +85 °C
- Small footprint: ~44mm x 24mm x 69mm

### Overview

DGE's Bluetooth Gateway (BTGW) provides access to the CAN data bus via a Bluetooth link. It allows the user to transmit and receive CAN data on up to two simultaneous vehicle networks (one high speed CAN and one single wire CAN) using a Bluetooth compatible device including mobile phones and tablets. Please contact us regarding device compatibility. The device is Bluetooth-configurable to transmit both periodic and one-shot CAN messages. It can filter on specific CAN IDs to reduce bandwidth. Configurations are stored persistently so that the BTGW retains settings when power is removed.

In stock form, the BTGW offers a robust, capable platform to access the CAN vehicle bus, but custom firmware is available for those requiring special features. Using the BTGW hardware as a base platform, DGE can work with you to develop tailor-fit firmware that can better meet your product needs.

The BTGW is based on DGE's fourth-generation gateway/general purpose development module. Flash re-programmability via Bluetooth allows for BTGW software updates supplied by DGE to be easily uploaded.



### Applications

- Monitor vehicle data wirelessly on various Bluetooth devices
- Supply network data wirelessly to a flight recorder
- Read fault codes and troubleshoot vehicle problems

Visit our website or contact DGE for more details.



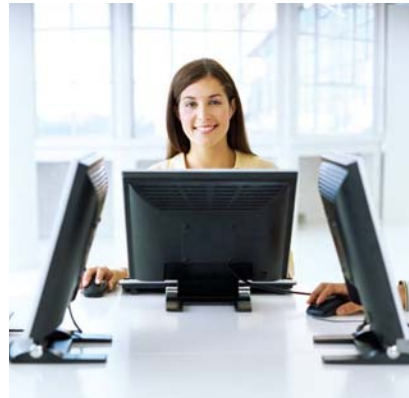
2870 Technology Dr.  
Rochester Hills, MI 48309  
Phone: 248.293.1300  
Fax: 248.293.1309  
<http://www.dgeinc.com>



# Solutions for Vehicle Electronics

## DGE Inc.

Providing electrical engineering design and consulting services to the automotive OEMs, Tier and Aftermarket Suppliers.



### Integration

With our experience and expertise, we assist our partners in integrating their products into the OEM vehicle. We focus on the entire vehicle system.

### Consulting

We collaborate with OEMs and Tier suppliers to develop and validate electronic designs. We support your EE activities by providing prototype design and consulting services. We speed the process by advising regarding the OEM product development cycles and provide project management and coordination.

### Design

Areas of expertise include:  
Embedded Software  
Telematics  
Vehicle Networks  
Testers and Simulators  
Communication Gateways  
ECU/Subsystem Hardware

### Products

- **Automotive Network Gateways**
  - CAN / GM-LAN
  - J1850 / GM Class2
  - Ford FNOS
  - LIN
- **Vehicle Bus Interfaces**
  - ECU subsystem for seamless access to OEM vehicle network
  - OEM-Safe Aftermarket Gateway
- **Custom Automotive Development Tools**
  - Engine Simulator
  - Transmission Simulator
  - Telematics HIL Vehicle Drive Simulator
  - High Speed Data Acquisition System
  - Load Boxes (design or build to print)
- **Custom Automotive Designs**
  - ECUs
  - Body Control Modules
  - Telematics / Infotainment Control Modules
  - Motor Control Modules
- **Telematics Designs**
  - GPS
  - GSM/CDMA
  - Bluetooth
  - DSRC /IntelliDrive On-Board Equipment



### Services

- **Hardware Design**
  - Embedded Circuit Design (MCU, ASIC, FPGA, CPLD, Power, and RF Technologies)
  - Prototype and Production Vehicle Module Design
  - ECU Test, Validation, and Simulation Equipment Design
- **Software Development**
  - Embedded Solutions
  - PC Solutions
  - C, C++, and Assembly Language
  - Real Time Operating Systems Application Design (Linux, OSEK, and Others)
  - National Instrument LabVIEW (Real Time, PDA, FPGA)
  - Graphical User Interface (GUI) Design with MFC
- **CAD and Lab Services**
  - Schematics and PCB Layout
  - Electronic Packaging Design – Solid Modeling
  - Complete Electronic Box Builds
  - Prototype Vehicle Modifications
- **Project Management**
  - Coordination / Management of Entire Customer Projects
- **Vehicle Electronics Troubleshooting and Consulting**
- **Support of Third-Party Test Equipment**
  - Hardware in the Loop Tester Maintenance / Upgrades
- **Testing and Validation**
  - Vehicle Bus Software and Hardware Design Validation
  - Vehicle-Level Bus Validation
  - ECU Diagnostics Validation



2870 Technology Dr.  
Rochester Hills, MI 48309  
Phone: 248.293.1300  
Fax: 248.293.1309  
<http://www.dgeinc.com>