



# DGE Inc.

## Telematics Systems Design

### *Consulting, Design, Integration, Testing, and Validation*

DGE has extensive experience designing infotainment and telematics solutions for Tier 1s and OEMs. We design embedded modules and also integrate, test, and validate complex end-to-end telematics systems with the help of our technically sophisticated, industry first, test and automation tools that provide the ability to validate the system in a robust, controlled, flexible and repeatable environment. DGE's processes and methods rely on thorough features and applications test plans as well as tracking tools that provide our customers with comprehensive test reports and a high level of transparency.

**End-to-End  
Integration,  
Validation,  
and  
Certification**

**Supplier  
Component  
Qualification**

**Ecosystem and  
Performance  
Qualification**

**Features and  
Applications  
Qualification**

**Applications  
Certification**

**Back Office  
Qualification**



### Consulting on Embedded Infotainment and Telematics ECUs

### Design and Development of Infotainment & Telematics ECUs & Systems

- Vehicle electrical architecture for telematics
- Telematics applications and integration
- End-to-End system components

### Integration of End-to-End Telematics Systems

- End-to-End integration and validation strategy and plans
- Telematics system constraints and weakness analysis
- Integration for automotive applications

### Testing and Validation for ECUs, Cloud Systems, and Cloud Applications

- Testing (Lab, HIL, and field) in Infotainment and Telematics space
- In-house, state of the art VDA hands-free audio quality test lab
- State of the Art Automated Test Systems
- Mission Critical Testing Methodology



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# 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.

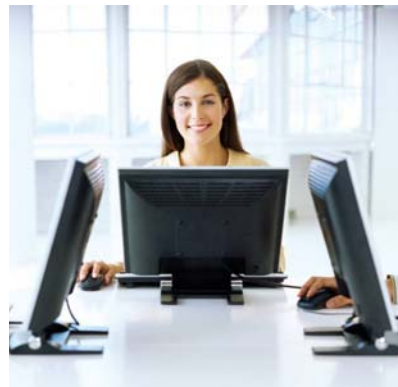
### Consulting

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 and Hardware
- Telematics
- Vehicle Networks
- Testers and Simulators
- Communication Gateways
- ECU/Subsystem Hardware
- System Integration and Validation



### Products

- **Automotive Network Gateways**
  - CAN / GM-LAN/ Ford FNOS
  - Ethernet
  - 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**
  - Body Control Modules
  - Telematics / Infotainment Control Modules
  - Motor Control Modules
  - Hybrid/BEV Battery Control Modules
- **Telematics Designs**
  - GPS
  - GSM/CDMA
  - Bluetooth, WiFi
  - DSRC / Car2x 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)
- **Testing and Validation**
  - Vehicle Bus Software and Hardware Design Validation
  - Vehicle-Level Bus Validation
  - ECU Diagnostics Validation
  - End-to-End System Integration and Validation
- **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**



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