

#### UNLIMITED INGENUITY



# **DATA LOGGER**

An automotive data logger is a specialized device used to collect and store data related to the vehicle's operation and its conditions. A commonly used tool within the automotive industry, data loggers are designed to record various parameters and events of a vehicle, providing insights into its overall behaviour, performance, and diagnostics.

The synergy of **Intelligent Memory**'s NAND Flash and DRAM technologies significantly boost the reliability and functionality of automotive data loggers, allowing them to receive, analyse, and store essential vehicle data with precision for lengthy periods of time.













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# MAJOR CHALLENGES IN DATA LOGGER APPLICATIONS

## **Data Integrity and Reliability**

Automotive data loggers capture crucial information related to vehicle performance, safety, and diagnostics. Ensuring data integrity and reliability is paramount.

#### Thermal and Environmental

Automotive data loggers need to withstand harsh environmental conditions, including extreme temperatures, vibrations, and potential exposure to moisture along with its ability to be energy-efficient to avoid excessively draining the vehicle's battery.

### **High-Speed Data Transfer**

Modern vehicles generate vast amounts of data. Challenges related to data transfer and integration include High-Speed Interfaces with integration of simultaneous functionalities.

# Need for Real-Time Data Processing

Some applications require real-time data processing, especially for advanced driver assistance systems (ADAS) and autonomous driving. Ensuring low latency and high throughput for real-time analytics is a significant challenge.

# **HOW IM DRIVES ADDRESS THE CHALLENGES:**

#### WE ENGINEER OUR DRIVES ...

- With high densities, available in various interfaces and form factors
- By maintaining high performance in extreme operating conditions
- With a robust product build to withstand vibration and shock
- To be available with hardware and firmware power loss protection
- To have customizable Thermal Throttling settings
- Secured with IMTrusted a complete security implementation
- With underfill and conformal coating feasibility to improve product longevity

