

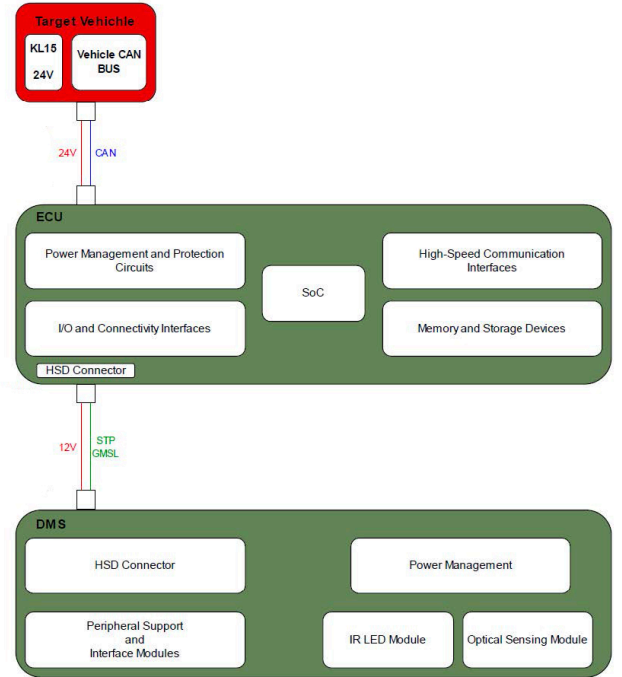
# DRIVER MONITORING SYSTEM

## Enhancing safety and awareness with the complete Driver Monitoring System

The DMS combines a high-performance camera and intelligent ECU to monitor driver's attention in real time. It detects signs of drowsiness, distraction, or attention, providing timely alerts to enhance safety. With seamless integration and reliable operation under all driving conditions, the system helps reduce accidents and supports smarter, more confident driving.

### Key Features

- **All-in-one solution** with ECU and camera bundled together, eliminating the need for an external processing unit.
- Monitors driver's **attention, fatigue, and distraction levels**.
- **Advanced AI algorithms** and **infrared sensors** for accurate real-time monitoring, day or night.
- **Meets 2026 GSRII EU** regulations for mandatory DMS in vehicles.
- Designed in compliance with **ISO 26262** for functional safety (**FuSa**).
- **Meets eye safety standards** for in-vehicle use.
- **Support DDAW and ADDW features** for driver **drowsiness** and **attention** detection.
- Compact standalone design that can be easily mounted behind the steering wheel, on the dashboard, or on the A-pillar.



System Layout

## TECHNICAL DETAILS CAMERA

- Camera Resolution:** 2.0MP
- IR Illumination:** 2 to 4 IR LED
- Supply Voltage:** 9V-16V
- Output Format:** RAW8 (GRAY)
- Interface Communication:** GMSL2
- Connector:** HSD STP Cable
- Configuration Interface:** I2C
- IP Rating:** IP52
- Body Dimensions:** 61 mm x 26 mm x 32 mm
- Operation Temperature Range:** -40°C to +85°C
- Field of View:** HFOV 44°, VFoV 55°
- Safety:** QM (ASIL-B Capable)



## TECHNICAL DETAILS ECU

- Processor:** Quad-core ARM Cortex-A53 @ 1.4 GHz + Cortex-M4F real-time co-processor
- Memory:** eMMC 16 GB, OSPI/QSPI, 8 GB LPDDR4
- Connectivity:** 1x Gigabit Ethernet (TSN support), 2x CAN-FD, USB 2.0, I2C, UART
- Camera Output:** 1 x4 MIPI-CSI-2
- Security:** Secure Boot, Hardware Crypto Engine (AES, SHA, TRNG, PKA, DRBG, MD5, HSM)
- Functional Safety:** ISO 26262 ASIL-B Capable
- Operating Systems:** Linux, QNX, Android, RTOS
- Supply Voltage:** 4V-36V
- Operation Temperature Range:** -40°C to +125°C

## DRIVER SENSE CAPABILITIES & SW FEATURES

### AVAILABLE

- Driver Presence
- Head Eye Tracking
- Short/Long Distraction
- Drowsiness
- Sleep
- Microsleep
- Unresponsive Driver
- Camera Blockage
- Camera Monitoring
- Gaze Detection
- Mask Detection
- Glasses Detection

### OPTIONAL

- Yawn
- Smoking
- Phone
- Seat Belt
- Hand/Finger Tracking
- Eating Drinking
- Pose Estimation