DIGITAL SIDE MIRROR CAMERA SYSTEM

Redefine visibility with the Digital Side Mirror Camera System

The **DSMCS** replaces traditional side mirrors with **high-resolution** digital cameras, providing a **wide-angle**, clear view of the vehicle's surroundings. Designed for **all lighting and weather conditions**, it minimizes **blind spots**, enhances **driver awareness**, and **supports safer, more confident lane changes** and **maneuvers.**

Key Features

- Two-camera, two-monitor system covering **Class II** and **IV** views for side mirror replacement and direct driver display.

- **Class V** and **VI** views transmitted to the vehicle's cluster **HMI** for extended monitoring.

- High-resolution digital cameras for side and wing mirror replacement, **supporting LHD** and **RHD** vehicle configurations.

- Angle views optimized for **Class II & IV** and **Class V & VI fields**, providing comprehensive monitoring coverage.

- Compliance with **UN ECE 46-04, ISO 6505, ISO 26262,** and **ASIL B** functional safety standards.

- **Forward and rearward auto panning** for dynamic coverage.

- **Class 2** zoomed view **activated automatically** during reverse gear.

- **Automatic brightness adjustment** for each monitor via integrated sensors.

- **Blind Spot Information System (BLIS)** warning functionality.

- **Anti-theft** protection.

- **End-of-Line (EOL) system auto-calibration** for precise alignment and performance.

- EMC-compliant electronics validated to **R10 standard.**

- **CAD** development compatible; integrated software and project management support.

- Robust performance under all environmental conditions **(temperature, vibration, humidity) and lighting scenarios (day/night).**

- **Automated active alignmen**t and **multi-axis calibration** for geometric accuracy.

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TECHNICAL DETAILS CAMERA

Camera Resolution: 3 MP

Connector: Fakra

Video Output: GMSL2

Field of View: 113° HFOV, 61° VFOV

IP Code: IP69K

Operating Temperature Range: -40°C to +125°C

Data Interface: I2C

Safety: ASIL B

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, 12C, UART

Camera Input: 1 x4 MIPI-CSI 2

Security: Secure Boot, Hardware Crypto Engine (AES, SHA, TRNG, PKA, DRBG, MD5, HSM)

Functional Safety: ISO 26262 ASIL-B Ready

Operating Systems: Linux, QNX, Android, RTOS

Supply Voltage: 4V-36V

Operating Temperature Range: -40°C to +125°C

Cybersecurity: Compliance with ISO 21434

ECU Standard: UDS (ISO 14229-1:2020)

DoIP Support: ISO 13400-2:2019

TECHNICAL DETAILS MONITOR

Size: 12.3 inch and 15 inch

IP Code: IP69K

Operating Temperature Range: -30°C to +85°C

Operating Voltage: 24V

Panel Type: LCD TFT non-touch

Resolution: 1920x1080

Panel Screen Protect Layer: Available

Product Positions: Vertical

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