

DMS AIS184

The Driver Monitoring System (DMS) is an AI-enabled in-cabin solution designed to enhance driver safety through continuous monitoring of driver behavior and attention. It features privacy-first on-device processing with real-time alerts for distraction, fatigue, and unsafe driving events. Built for automotive environments, it supports continuous vehicle power operation and robust data logging. With flexible integration and OTA update capability, DMS is ideal for fleet management, OEM safety systems, and ADAS platforms.



FEATURES

Real-time Driver State Analysis

Sleep, Blink, Yawning Detection

Phone Talking & Texting Detection

Seatbelt Warning Detection

Audible Alerts

Event & Video Upload To Cloud

Technical Specification

SoC	TI AM620-Q1 automotive processor	IR wavelength	850 nm
CPU	Quad-core ARM Cortex-A53	IR intensity	215 mW/sr
CPU Speed	1.4 GHz	Viewing angle	150°
Real-time core	ARM Cortex-M4F	LED driver	TPS922050
Camera interface	MIPI CSI-2	CAN	CAN and CAN-FD
Networking	CAN-FD capable	Ethernet	100BASE-T1
Ethernet	Gigabit Ethernet MAC	Wi-Fi	Wi-Fi 6
Functional safety	ISO 26262 ASIL-D	Bluetooth	BLE 5.2 / 5.3
Security	Secure boot, Root-of-Trust, TEE	Wireless throughput	Up to 50 Mbps
Automotive grade	AEC-Q100 Grade 2	Wireless security	WPA2 / WPA3
Operating temperature	-40°C to +125°C	Alert device	Piezo buzzer
RAM Type	LPDDR4	Around level	≥85 dB
RAM Size	16 Gbit	Frequency	2.7 kHz
Storage Type	eMMC	Voltage	2-5 V
Storage Capacity	512 Gbit	Power management	Automotive PMIC
External Storage	Micro SD Card	Buck converter	Automotive buck regulator
SD Capacity	Up to 2TB	Protection features	Overcurrent and thermal protection
Image sensor	OmniVision OV9284	Watchdog	External watchdog timer
Resolution	1280 × 800	Watchdog function	Processor supervision
Megapixel	1 MP	Reset	Automatic reset
Shutter type	Global shutter	RTC	Real-time clock
Camera type	Monochrome	Backup	Backup support
Frame rate	Up to 120 fps	Edge processing	On-device AI processing
Pixel size	3 μm	Cloud connectivity	Yes
Interface	MIPI CSI-2	Vehicle integration	CAN integration
Lens	Fixed focus automotive lens	Firmware support	Firmware support
IR support	IR compatible	Debug support	USB UART debugging
Night vision	IR illumination support	Operating temperature	-40°C to +125°C

Explore our full product portfolio at www.rapidise.co

For partnerships and enterprise deployments, contact: sales@rapidise.co