

Aurora AVS-MNVR-E Vehicle Solutions

- ▶ **Modular AI Platform for Scalable Surveillance and Fleet Management**
- ▶ **Advanced video surveillance system with AI accelerator for video AI capabilities**
- ▶ **Supports the latest RF communication technologies**
- ▶ **Rugged platform with Automotive-grade shock and Vibration tolerance, Wide operating temperature, and Wide power input range for harsh environments**
- ▶ **Easily installed and paired with Smart Displays via a single-cable connection**
- ▶ **Scalable computing performance via CPU boards for specific application requirements**



SPECIFICATIONS

CORE

Processor

- Intel® Atom™ X5-E3940 quad-core, 1.8 GHz/ Intel® Core™ i7-7600U dual-core, 3.9 GHz/ Intel® Core™ i5-7300U dual-core, 3.5 GHz

Operating System

- Windows 10 IoT Enterprise 2019 LTSC (64-bit), Linux (available upon request)

Memory

- 1 x SODIMM, up to 8 GB DDR3L 1866 non-ECC memory / 2 x SODIMM, up to 32 GB DDR4 2133 non-ECC memory (with dual channel support)

Graphics

- Integrated 2D/3D graphics engine

STORAGE

mSATA (OS Disc)

- 1 x internal mSATA, up to 128GB (supports UMLC/MLC/TLC industrial-grade storage and system bootup)

SSD

- 1 x externally accessible 2.5" SSD tray with key-lock protection, up to 7.6 TB TLC industrial-grade SSD

Micro-SD Card (upon request)

- 1 x externally accessible Micro-SD card reader with key-lock protection (supports system bootup)

DISPLAY

Display Port 2.0

- 12V/2A power output for Smart displays, 1 x high-resolution video, 1 x audio signal, 1 x USB 2.0, 1 x power button and 1 x reset button (via the Smart Display) (the SDP settings are configurable via MRM SDK)

HDMI

- 1 x HDMI 1.3

ETHERNET

LAN1

- 10/100/1000 Mbps Intel i219 GbE, support Wake On Lan

LAN2

- 10/100/1000 Mbps Intel i219 GbE, support Wake On Lan

AUDIO

Interface

- Realtek ALC888S, High Definition Audio. Line-out, Mic-in, Line-in

I/O INTERFACE

Serial Ports

- 3 x RS-232/422/485 port with auto flow control

USB Interface

- 3 x USB3.0 Type A

GPIO

- "4 x DI & 4 x DO w/ 1.5KV isolation, Input Voltage: 0 to 30 VDC, Output Current: Max. 500 mA per channel, On-state Voltage: 24 VDC nominal, open collector to 30 VDC"

VDC Output

- 12VDC/1.5A

OTHER

Watchdog timer

- 255 levels timer interval, setup by software

TPM

- TPM2.0 (Infineon SLB9665)
- 1 x externally accessible mini SIM card socket with cover, 1 x embedded SIM (available upon request)
- 1 x M.2 3042/3052 (B key, USB 3.0) for Sierra Wireless 5G module (5G NR Sub-6 GHz, LTE Cat-16)

GPS

- Built-in u-blox Neo-M8N supports concurrent reception of up to 3 GNSS (GPS, Galileo, GLONASS, BeiDou) 2.5-meter accuracy, GPS management (via MRM SDK)
- Optional Neo-M8U/Neo-M8L (dead reckoning) available upon request

Antenna

- 5 x FAKRA connectors for 1 x GPS (C-code), 2 x Wi-Fi + Bluetooth (I/Z-code), 2 x WWAN/LTE(D/L-code) with Wi-Fi/WWAN MIMO support

POWER SUPPLY

Voltage Input

- 12/24 V power (ISO 7637-2 and SAE J1113 compliant)

Intelligent Vehicle Power Management (iVPM 2.0)

- System power on/off/hibernate management (programmable ignition on/off/delay)
- PoE power total/on/off management (via MRM SDK)
- Supports wake-up events: wake-on-alarm (RTC), wake-on-call/SMS, and wake-on-G-sensor
- System power protection (vehicle battery low-voltage protection)
- System monitoring and diagnostics

GENERAL

Sensors

- 1 x g-sensor and gyroscope

Expansion

- Edge AI (upon request): 1 x full-size mini PCIe (PCIe/USB 2.0) for edge AI; supports up to 2 x Intel® Movidius® Myriad™ X VPUs

Expansion (via I/O extension)

- V2X: 1 x full-size mini PCIe (USB2.0) for V2X module

Dimensions (W * D * H)

- 314 * 165.5 * 75.1 mm

Protection

- IP65 (excludes rear I/O) (optional IP65-rated M12 system I/O cover available upon request)

Weight

- 4.2 kg (excludes SSD)

Approvals

- Vibration/Shock MIL-STD-810G, EN60721-3(5M3)
- EMC CE, FCC, RCM, CCC
- Safety UL/cUL, CB, CCC
- Vehicle Regulation E-Mark (E13), SAE J1455, ISO 7637-2, SAE J1113
- RF Regulation CE (RED), FCC ID, IC ID

Operating Conditions

- -30 °C ~ 70 °C (- 22°F ~158°F) Atom™ X5-E3940,
- -20 °C ~ 50 °C (- 4°F ~122°F) Core™ i7/i5
- (-20 °C ~ 60 °C (- 4°F ~140°F) Optional

Storage Conditions

- -40 °C ~ 80 °C (- 40°F ~176°F)