



VIA AMOS-825

In-Vehicle Edge Computing System

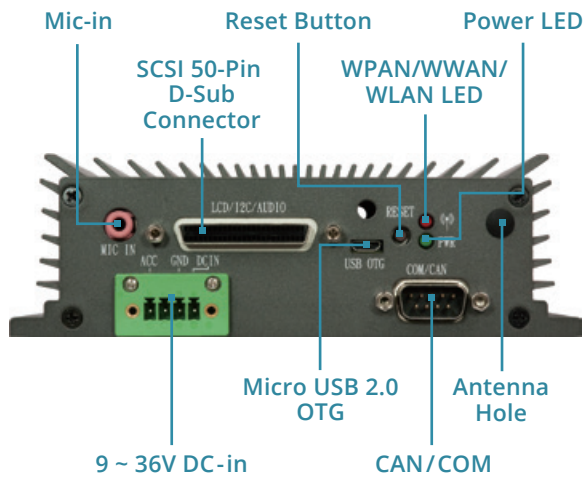


Enhance commercial fleet safety and efficiency with the VIA AMOS-825 in-vehicle system. Powered by a 1.0GHz NXP i.MX 6Quad Cortex-A9 SoC, this fanless small form factor system has been specifically designed for demanding, edge compute-intensive navigation and infotainment applications. The low-power VIA AMOS-825 has been optimized for in-vehicle operation with a host of advanced features such as wide voltage input, a wide operating temperature range, sophisticated power management, ignition-controlled quick boot, and dual CAN bus support. The system also features an Android 6.0 EVK package and is Microsoft Azure Certified for IoT. With its robust and versatile chassis, the VIA AMOS-825 can be rapidly customized to meet a wide range of in-vehicle requirements and has been successfully deployed by the largest taxi company in Japan for its Smart IoT Mobility System.

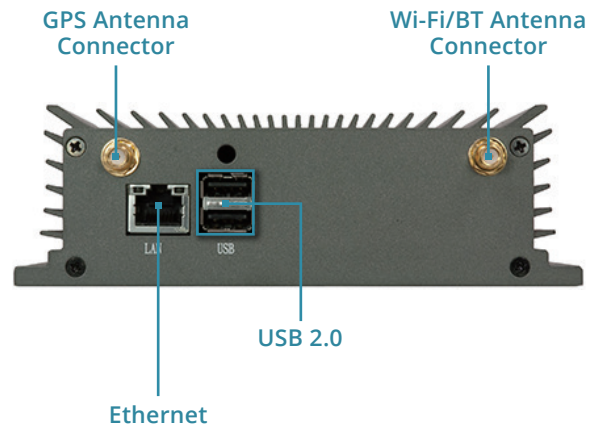
- ◆ 1.0GHz NXP i.MX 6Quad Cortex-A9 SoC
- ◆ Intelligent vehicle power management: ACC/IGN on/off delay & power protection
- ◆ Legacy I/O support including dual CAN bus, COM, and GPIO
- ◆ Built-in Wi-Fi, Bluetooth and GPS
- ◆ EVK package featuring Android 6.0
- ◆ Microsoft Azure Certified for IoT



VIA AMOS-825 Front Panel



VIA AMOS-825 Rear Panel



VIA AMOS-825 Specifications

Processor	1.0GHz NXP i.MX 6Quad Cortex-A9 SoC
System Memory	1GB DDR3 SDRAM onboard
Storage	16GB eMMC Flash memory
Boot Loader	4MB SPI Flash ROM
Graphics	Vivante GC2000 GPU 3 independent, integrated 3D/2D and video graphics processing units Graphics engine supporting OpenGL® ES 2.0, OpenCL and OpenVG™ 1.1 hardware acceleration Supports MPEG-2, VC-1 and H.264 video decoding up to 1080p Supports SD encoding
LAN	Micrel KSZ9031RX Gigabit Ethernet transceiver with RGMII support
Wi-Fi/Bluetooth/GPS	IEEE 802.11 b/g/n Wi-Fi Bluetooth 4.0 MAX-7 u-blox 7 GPS/GNSS
Audio	NXP SGT5000 low power stereo codec
USB	SMSC USB2514 USB 2.0 high-speed 4-port hub controllers
CAN	TI SN65HVD1050 EMC optimized CAN transceiver
Expansion I/O	1 miniPCIe slot
Front Panel I/O	1 Micro USB 2.0 OTG port 1 9-pin D-sub connector (supports 2 CAN bus and 1 COM TX/RX for debug) 1 SCSI 50-pin D-sub connector (Backlight power, Dual-channel LVDS, 4 GPIO, I ² C, Line-out and Mic-in) 1 Mic-in 1 Reset button 2 LEDs for power & WPAN/WWAN/WLAN status 1 Antenna hole 1 4-pole Phoenix DC jack
Back Panel I/O	2 USB 2.0 ports 1 Gigabit Ethernet port 2 Antenna connectors for Wi-Fi/BT and GPS
Power Supply	9 ~ 36V DC-in (typical: 7W)
Operating System	Android 6.0
VIA Smart ETK	Watchdog timer, CAN bus
Operating Temperature	0°C ~ 60°C
Operating Humidity	0% ~ 90% @ 45°C (non-condensing)
Vibration Loading During Operation	With onboard eMMC 7Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis
Shock During Operation	With onboard eMMC 70G, IEC 60068-2-27, half size, 11ms duration
Bottom Opening Covers	Open window with removable door plate to access Micro SD and miniPCIe slots
Mechanical Construction	Aluminum top chassis housing Metal chassis housing Dual removable front & rear metal face plate
Mounting	Wall/DIN Rail/VESA mountable
Dimensions	150.5mm(W) x 48.1mm(H) x 103.3mm(D) (5.9" x 1.9" x 4.1")
Weight	0.673kg (1.48lbs)
Compliance	CE, FCC