

VIA
AMOS-825

Fanless ultra-compact quad-core ARM system ruggedized for demanding transportation environments

Features

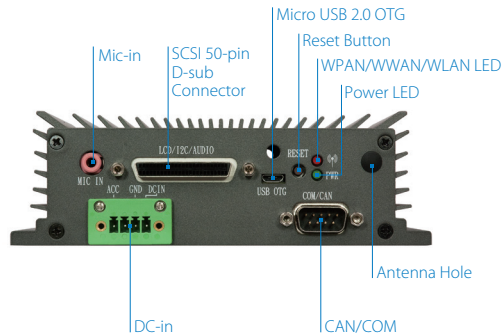
- 1.0GHz NXP i.MX 6Quad Cortex-A9 SoC
- Intelligent vehicle power management: ACC/IGN on/off delay & power protection
- Legacy I/O support including dual CAN bus, COM, and GPIO
- Built-in Wi-Fi, Bluetooth and GPS
- Android solution pack available



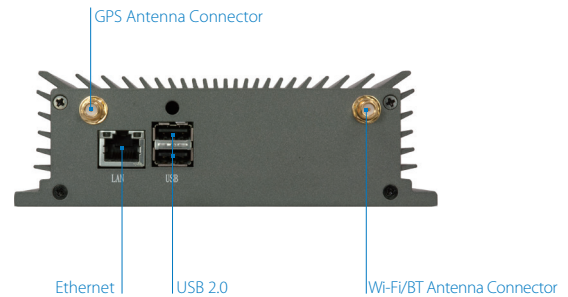
Specifications

Model Name	AMOS-825
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 KSZ9031RNX Gigabit Ethernet transceiver with RGMII support
Wi-Fi/Bluetooth/GPS	IEEE 802.11b/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, I²C, 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 sine, 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

Front Panel External I/O



Back Panel External I/O



Specifications

Model Name	AMOS-825
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

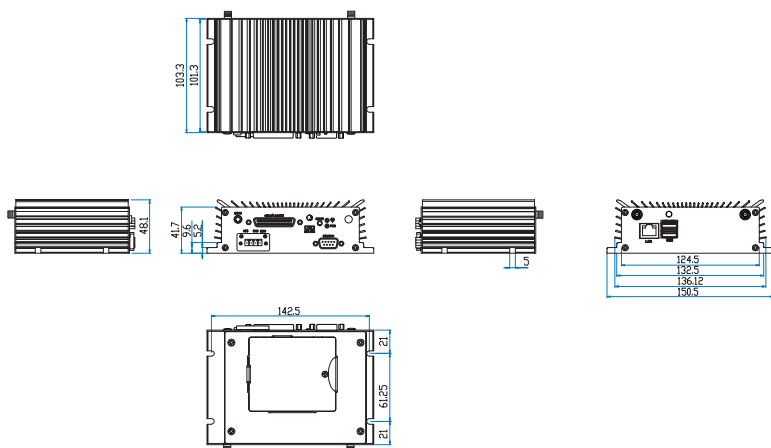
Ordering Information

Part Number	SoC Frequency	Description
AMOS-825-1Q10A2	NXP i.MX 6Quad Cortex-A9 SoC @ 1.0GHz	Fanless embedded system with 1.0GHz NXP i.MX 6Quad Cortex-A9 SoC, 1GB DDR3 RAM, 16GB eMMC, 4MB SPI Flash ROM, SCSI 50-pin D-sub connector, 2 USB 2.0, Micro USB 2.0 OTG, COM, CAN bus, GPIO, Gigabit Ethernet, Wi-Fi, Bluetooth 4.0, GPS, miniPCIe slot, Micro SD card slot, 9~36V DC-in

Optional Accessories

Touch Monitors	
Part Number	Description
99G73-010229	7" Projective capacitive touch monitor (800x480, -20°C ~ 70°C)
Wireless Accessories	
Part Number	Description
EMIO-2550-00A1	3.75G HSPA/UMTS mobile broadband full-size miniPCle module with GPS, SIM card slot, assembly kit and antenna (*Note: GPS function is not supported - AMOS-825 already includes GPS support)

Dimensions



Unit: mm

Packing List

Items
AMOS-825 system
Phoenix plug to DC jack
COM/CAN conversion cable
Wi-Fi/BT antenna
GPS antenna
SCSI 50-pin connector cable
Screw pack for mounting
Rubber feet pack