

AMOS Series

NEW

VIA

AMOS-3001

Ultra Compact Fanless Embedded System for Pico-ITX EPIA-P720 & P820 Boards



Features

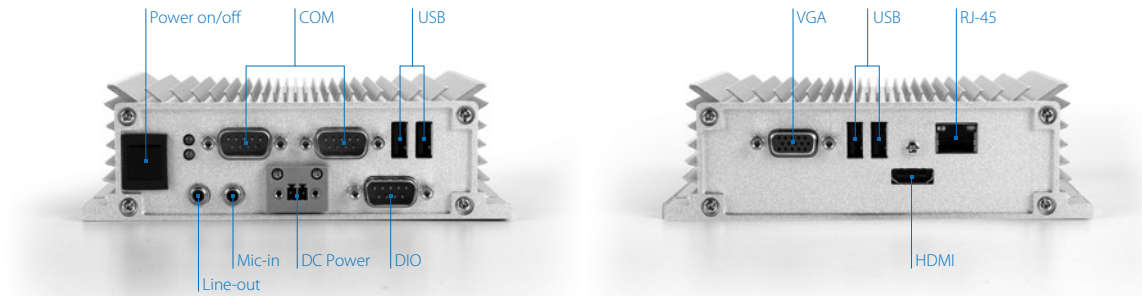
- A fanless, ultra compact embedded system designed to support the EPIA-P720 and EPIA-P820 embedded boards
- Supports comprehensive I/O functions on front and rear panels for diversified embedded applications
- Wide range of operating temperatures from -20°C up to 70 °C
- Shock resistant to 70G and vibration to 7G for maximum reliability
- Supports hardware acceleration of MPEG-2/4, WMV9 & H.264 for full HD 1080P display
- Supports Gigabit Ethernet and optional WiFi networking
- Multiple mounting solutions: Wall/ table/ VESA
- Embedded OS ready platform

Specifications

Model		AMOS-3001-1E10A1	AMOS-3001-1N12A1
Computing System	Processor	1.0GHz VIA Eden™ ULV	1.2GHz VIA Nano™ ULV
	Front Side Bus	400 MHz	800 MHz
	L2 Cache	128KB	1MB
	Chipset	VIA VX855 Unified Digital IGP chipset	
	BIOS	Award 4 MBit SPI Flash BIOS	
	System Power Management	Times Power on, ACPI supported	
Memory	Technology	1 x DDR2 533/667/800 200-pin, SDRAM SODIMM socket	
	Max. Capacity	Up to 2GB memory size	
Graphic	Controller	Integrated VIA UniChrome™ ProII 3D/2D AGP graphics with MPEG-2/4 and WMV9 & H.264 video decoding acceleration	
	Display Memory	Optimized shared memory architecture, supports up to 512 MB frame buffer using system memory	
	CRT Interface	Supports 1 x external VGA port by a DB-9 connector Pixel resolution support up to 1920 x 1200	
	HDMI Interface	Onboard 1 x HDMI port connector	
	Dual View	Dual independent display of CRT and HDMI at different resolutions, pixel depths, and refresh rates	
Ethernet	Controller	Onboard VIA VT6122 Gigabit Ethernet controllers	
	Interface	Supports 1 x RJ-45 connector Supports Wake on LAN (WOL) Supports Pre-boot Execution Environment (PXE)	
	HD Audio	Controller	VIA VT1708B High Definition Audio Codec
Serial	Interface	Support 2 x 3.5Φ Audio jack as Speaker and Mic-in	
	USB	4 x USB ports, USB 2.0 compliant	
GPIO	Serial Ports	2 x COM ports (1 x RS-232 and 1x RS-232/422/48, jumper selectable)	
	General Purpose I/O	Supports 1 x D-Sub 9-pin connector of 8-bit GPIO + 5V power source (4GPI+4GPO)	
Storage	Flash Disk On Module (DOM)	Default supports 1 x IDE 44-pin Flash Disk On Module (DOM) bay	
	HDD	Optional supports 1 x 2.5" SATA hard disk drive bay (when system equipped with optional storage chassis)	
System Indicator	Power Status LED	1 x Red color LED	
	HDD Activity LED	1 x Green color LED	
Watch Dog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec	
Front Panel External I/O connectors	Dual COM	2 x D-Sub 9-pin connectors (1 x RS-232 and 1x RS-232/422/485)	
	Dual USB 2.0	2 x USB ports of min-DIN connectors	
	Audio Line-out	1 x 3.5Φ Audio jack as Line-out	
	Audio Mic-in	1 x 3.5Φ Audio jack as Mic-in	
	Digital I/O	1 x D-Sub 9-pin connector, supports 8-bit digital I/O + 5V power source (4GPI+4GPO)	



System I/O



Specifications

Model		AMOS-3001-1E10A1	AMOS-3001-1N12A1
Rear Panel External I/O connectors	VGA	1 x D-Sub 15-pin female connector	
	Dual USB 2.0	2 x USB ports of min-DIN connectors	
	Gigabit LAN	1 x RJ-45 connectors of Gigabit Ethernet LAN port	
	HDMI	1 x HDMI connector	
Power Supply	Power Consumption	Typical 13.35W	Typical 19.14W
	Input Voltage	Accept power input of DC 12V Typical power input 12 VDC @ 1.68 A	
	Power Input connector	DC power input connector by 2-pole Phoenix connector	
	Input Power Protection	Supports over voltage protection Supports over current protection Supports under voltage protection Surge (surge function check by JM)	
	Fuse Rating	7A @ 125V	
Mechanical	Construction	Aluminum top chassis housing Metal chassis housing Dual removable front and rear metal plates	
	Mounting	Wall/Table/VESA mountable	
	Dimensions (W x H x D)	150 mm (w) x 45 mm (H) x 108 mm (D) 150 mm (w) x 65 mm (H) x 108 mm (D) (when system equipped with storage chassis)	
	Weight	0.6 kg (1.32lbs)	
	Operation Temperature	-20 °C up to 70 °C for 1.0GHz Eden™ ULV SKU (P/N: AMOS-3001-1E10A1) 0 °C up to 60 °C for 1.2GHz Nano™ ULV SKU (P/N: AMOS-3001-1N12A1) 0 °C ~ 45 °C when system equipped with storage chassis	
Environmental Specification	Storage Temperature	-20 °C ~ 70 °C	
	Relative Humidity	0 ~ 90% @ 45 °C, non-condensing	
	Vibration Loading During Operation	With IDE 44-pin flash disk on module: 7Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis With hard disk drive: 1Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis	
	Shock During Operation	With IDE 44-pin flash disk on module: 70G, IEC 60068-2-27, half size, 11ms duration With hard disk drive: 20G, IEC 60068-2-27, half size, 11ms duration	
	EMC Approved	CE, FCC,CCC Class A	
	Operation System	Microsoft Windows XP, Windows 7 Windows XP Embedded, Ubuntu Linux	
	Software Compatibility		

Ordering Information

Part Number	System Built-in CPU	Description
AMOS-3001-1E10A1	1.0GHz Eden™ ULV	1.0GHz Eden™ ULV CPU Based Fanless Embedded System, with VGA, HDMI, 4 x USB 2.0, 2 x COM, 1 x GbE, 1 x Speaker, Mic-in, DC-in 12V
AMOS-3001-1N12A1	1.2GHz Nano™ ULV	1.2GHz Nano™ ULV CPU Based Fanless Embedded System, with VGA, HDMI, 4 x USB 2.0, 2 x COM, 1 x GbE, 1 x Speaker, Mic-in, DC-in 12V

Ordering Information

Part Number	System Built-in CPU	Description
AMOS-3001-2E10A1	1.0GHz Eden™ ULV	1.0GHz Eden™ ULV CPU Based Fanless Embedded System, with Storage Chassis, SATA Cable, SATA Power Cable, VGA, HDMI, 4 x USB 2.0, 2 x COM, 1 x GbE, 1 x Speaker, Mic-in DC-in 12V
AMOS-3001-2N12A1	1.2GHz Nano™ ULV	1.2GHz Nano™ ULV CPU Based Fanless Embedded System, with Storage Chassis, SATA cable, SATA Power Cable, VGA, HDMI, 4 x USB 2.0, 2 x COM, 1 x GbE, 1 x Speaker, Mic-in DC-in 12V

Optional Accessories

External AC-to-DC Adapter and Power Cable

Part Number	Description
99G63-020165	Power adapter input 100V-240V; output 12V , 60W, with 2-pin Phoenix connector
99G33-02032C	Power cord, 180 cm, USA type
99G33-02034C	Power cord with PSE mark, 180 cm for Japan
99G33-02033C	Power cord, 180 cm, Europe type
99G33-02031C	Power cord, 180 cm, UK type

Embedded OS (Only available for T-Parts OEM service)

Part Number	Description
POS-MXPELL-ENS06	Windows XP Embedded SP3 OS image and license, English version
VOS-UMELXI-ENS06	Linux, MID Edition, OS image only , English version
POS-MCE6LI-ENS06	Windows CE 6.0 Professional image & license English version

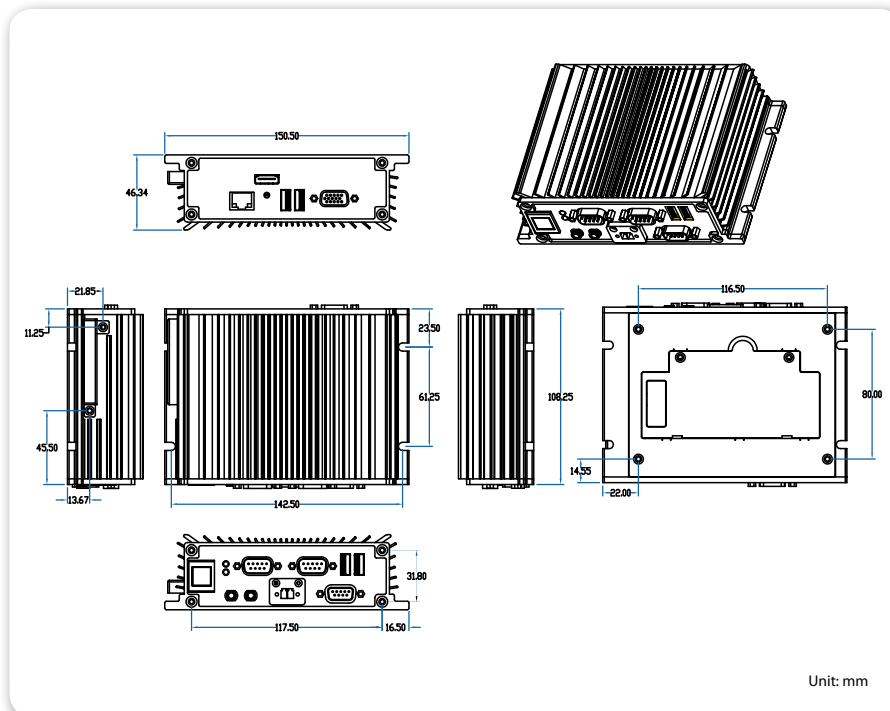
Expansion Chassis

Part Number	Description
AMOS-3001-1SZZA1	Storage sub-system chassis

RAM Module, Flash Disk, and 2.5" Hard Disk Drive

Part Number	Description
99G06-010578	2GB DDR2 667MHz, 128Mx8 SDRAM SODIMM, industrial grade, Tc of -40 ~ 85°C
99G06-010178	1GB DDR2 667MHz, 64Mx8 SDRAM SODIMM, industrial grade, Tc of -40 ~ 85°C
99G06-010598	2GB DDR2 800MHz, 128Mx8 SDRAM SODIMM, industrial grade, Tc of 0 ~ 85°C
99G06-010588	1GB DDR2 800MHz, 128Mx8 SDRAM SODIMM, industrial grade, Tc of 0 ~ 85°C
99G61-020114	250GB, Fujitsu 2.5" SATA HDD 5400RPM
99G61-050143	1GB, IDE 44-pin Flash Disk On Module(DOM), industrial grade, wide temperature Tc of -40°C ~ 85°C
99G61-050133	2GB, IDE 44-pin Flash Disk On Module(DOM), industrial grade, wide temperature Tc of -40°C ~ 85°C
99G61-050123	4GB, IDE 44-pin Flash Disk On Module(DOM), industrial grade, wide temperature Tc of -40°C ~ 85°C

Dimensions



Packing List

- 1 x AMOS-3001 unit
- 1 x Driver & Utility CD Disk
- 1 x VESA Mount bracket
- 1 x Power cable, 2-Pole Phoenix plug to DC-jack
- 1 x Thermal pad for memory
- 1 x Washer rubber for table set up
- 1 x HDMI to DVI-D adapter cable