

## Fanless Systems

VIA

# AMOS-3001

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



## Features

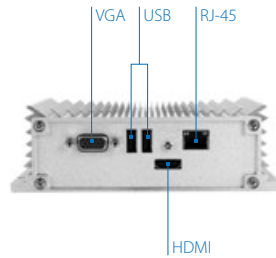
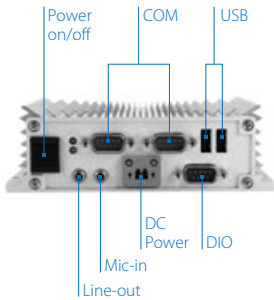
- A fanless, ultra compact embedded system designed to support the EPIA-P720 and EPIA-P820 embedded boards
- Supports comprehensive I/O functions on front and rear panels for diversified embedded applications
- Wide range of operating temperatures from -20°C up to 70 °C
- Shock resistant to 70G and vibration to 7G for maximum reliability
- Supports hardware acceleration of MPEG-2, 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

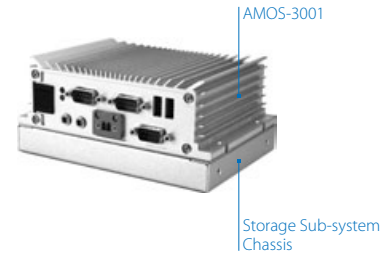
Model		AMOS-3001-1E10A2	AMOS-3001-1N12A3
<b>Computing System</b>	<b>Processor</b>	1.0GHz VIA Eden® ULV	1.2GHz VIA Nano® E-Series
	<b>Front Side Bus</b>	400 MHz	800 MHz
	<b>L2 Cache</b>	128KB	1MB
	<b>Chipset</b>	VIA VX855 Media System Processor chipset	
	<b>BIOS</b>	AMI 4 MBit LPC Flash BIOS	
	<b>System Power Management</b>	Times Power on, ACPI supported	
	<b>Memory</b>	<b>Technology</b>	1 x DDR2 533/667/800 200-pin, SDRAM SODIMM socket
<b>Max. Capacity</b>		Up to 2GB memory size	
<b>Graphic</b>	<b>Controller</b>	Integrated VIA Chrome®9 HCM DX9 3D/2D graphics with MPEG-2, WMV9 & H.264 video decoding acceleration	
	<b>Display Memory</b>	Optimized shared memory architecture, supports up to 256 MB frame buffer using system memory	
	<b>CRT Interface</b>	Supports 1 x external VGA port by a DB-15 connector Pixel resolution support up to 1920 x 1200	
	<b>HDMI® Interface</b>	Onboard 1 x HDMI port connector	
	<b>Dual View</b>	Dual independent display of CRT and HDMI at same resolutions, pixel depths, and refresh rates	
<b>Ethernet</b>	<b>Controller</b>	Onboard VIA VT6122 Gigabit Ethernet controllers	
	<b>Interface</b>	Supports 1 x RJ-45 connector Supports Wake on LAN (WOL) Supports Pre-boot Execution Environment (PXE)	
	<b>HD Audio</b>	<b>Controller</b>	VIA VT1708S High Definition Audio Codec
<b>Serial</b>	<b>Interface</b>	Support 2 x 3.5Φ Audio jack as Line-out and Mic-in	
	<b>USB</b>	4 x USB ports, USB 2.0 compliant	
<b>DIO</b>	<b>Serial Ports</b>	2 x COM ports (1 x RS-232 and 1x RS-232/422/48, jumper selectable)	
	<b>Digital I/O</b>	Supports 1 x D-Sub 9-pin connector of 8-bit Digital I/O + 5V power source (4-DI + 4-DO)	
<b>Storage</b>	<b>Flash Disk On Module (DOM)</b>	Default supports 1 x IDE 44-pin Flash Disk On Module (DOM) bay	
	<b>HDD</b>	Optional supports 1 x 2.5" SATA hard disk drive bay (when system equipped with optional storage chassis)	
<b>System Indicator</b>	<b>Power Status LED</b>	1 x Green color LED	
	<b>HDD Activity LED</b>	1 x Red color LED	
<b>Watch Dog Timer</b>	<b>Output</b>	System reset	
	<b>Interval</b>	Programmable 1 ~ 255 sec	
<b>Front Panel External I/O connectors</b>	<b>Dual COM</b>	2 x D-Sub 9-pin connectors (1 x RS-232 and 1x RS-232/422/485)	
	<b>Dual USB 2.0</b>	2 x USB ports of min-DIN connectors	
	<b>Audio Line-out</b>	1 x 3.5Φ Audio jack as Line-out	
	<b>Audio Mic-in</b>	1 x 3.5Φ Audio jack as Mic-in	
	<b>Digital I/O</b>	1 x D-Sub 9-pin connector, supports 8-bit digital I/O + 5V power source (4-DI + 4-DO)	



## System I/O



## Combination of AMOS-3001 and Sub-system Chassis



## Specifications

Model		AMOS-3001-1E10A2	AMOS-3001-1N12A3
Rear Panel External I/O connectors	VGA	1 x D-Sub 15-pin female connector	
	Dual USB 2.0	2 x USB 2.0 ports of min-DIN connectors	
	Gigabit LAN	1 x RJ-45 connector of Gigabit Ethernet 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	
	Fuse Rating	7A @ 125V	
Mechanical	Construction	Aluminum alloy Dual removable front and rear faceplates	
	Mounting	Wall/Table/VESA mountable	
	Dimensions	150 mm (W) x 46 mm (H) x 108 mm (D) (5.9" x 1.8" x 4.25") 150 mm (W) x 66 mm (H) x 108 mm (D) (when system equipped with storage sub-system chassis) (5.9" x 2.59" x 4.25")	
	Weight	0.6 kg (1.32lbs)	
Environmental Specification	Operation Temperature	-20 °C up to 70 °C for 1.0GHz Eden™ ULV processor version (P/N: AMOS-3001-1E10A2) -10 °C up to 60 °C for 1.2GHz Nano™ E processor version (P/N: AMOS-3001-1N12A3) <u>Q</u> °C ~ 45 °C when system equipped with storage sub-system chassis	
	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	
Software Compatibility	Operation System	Microsoft® Windows® 7, XP, Windows® XP Embedded Standard, WES 7, Embedded Linux	

## Ordering Information

Part Number	System Built-in CPU	Description
AMOS-3001-1E10A2	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 Line-out, Mic-in, DC-in 12V
AMOS-3001-1N12A3	1.2GHz Nano® E-Series	1.2GHz Nano® E-Series CPU Based Fanless Embedded System, with VGA, HDMI, 4 x USB 2.0, 2 x COM, 1 x GbE, 1 x Line-out, Mic-in, DC-in 12V
AMOS-3001-2E10A2	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 Line-out, Mic-in DC-in 12V
AMOS-3001-2N12A3	1.2GHz Nano® E-Series	1.2GHz Nano® E-Series 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 Line-out, Mic-in DC-in 12V

## Optional Accessories

\*Note: The optional accessories may have minimum ordering quantity limitation. Please contact VIA Sales representative for more details.

### External AC-to-DC Adapter and Power Cable

Part Number	Description
99G63-020316	AC-to-DC adapter, DC 12V/60W with 2-pole phoenix power plug
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

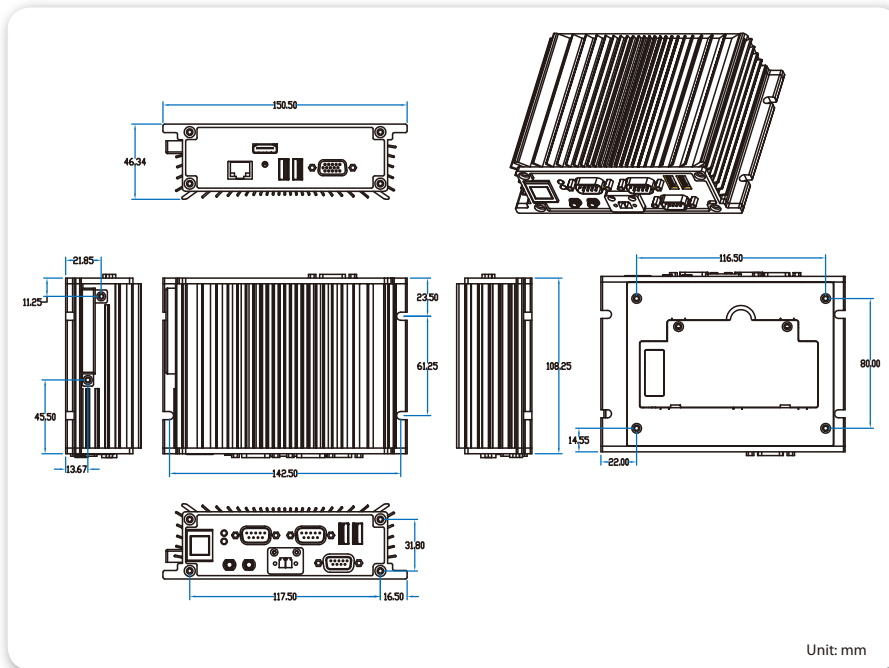
### Embedded OS (Only available for T-Parts OEM service)

Part Number	Description
POS-MEXSLI-ENS04	Windows XP Embedded Standard Image & License For AMOS-3001(P820) English Version
POS-ME7SLI-ENS04	Windows Embedded Standard 7 Image & License For AMOS-3001(EPIA-P820) English Version, (Require minimum 4G Flash Disk On Module)
POS-ME7CLI-ENS04	Windows Embedded Standard 7 Compact size Image & License For AMOS-3001(EPIA-P820) English Version,(Require minimum 2G Flash Disk On Module)

### Expansion Chassis

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

## Dimensions



## Packing List

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