

## AMOS Series

NEW

VIA

# AMOS-3001

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



## Features

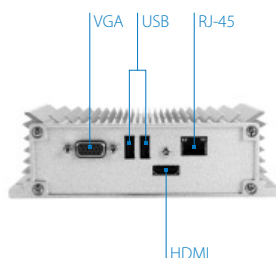
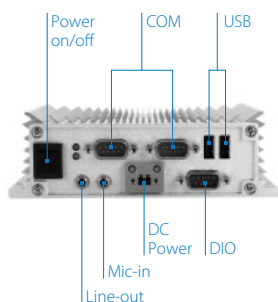
- A fanless, ultra compact embedded system designed to support the EPIA-P720 and EPIA-P820 embedded boards
- Supports comprehensive I/O functions on front and rear panels for diversified embedded applications
- Wide range of operating temperatures from -20°C up to 70 °C
- Shock resistant to 70G and vibration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

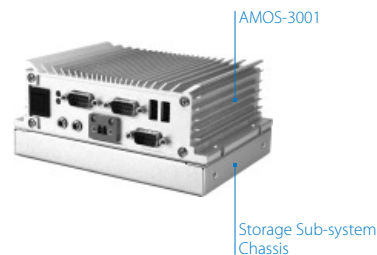
| Model                                      | AMOS-3001-1E10A1                           | AMOS-3001-1N12A1  |   |
|--|--|---|---|
| <b>Computing System</b>                    | <b>Processor</b>                           | 1.0GHz VIA Eden™ ULV  | 1.2GHz VIA Nano™  |
|  | <b>Front Side Bus</b>                      | 400 MHz   | 800 MHz   |
|  | <b>L2 Cache</b>                            | 128KB   | 1MB   |
|  | <b>Chipset</b>                             | VIA VX855 Unified Digital IGP chipset   |   |
|  | <b>BIOS</b>                                | Award 4 MBit SPI 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 UniChrome™ ProII 3D/2D AGP graphics with MPEG-2/4 and WMV9 & H.264 video decoding acceleration |   |
|  | <b>Display Memory</b>                      | Optimized shared memory architecture, supports up to 512 MB frame buffer using system memory                  |   |
|  | <b>CRT Interface</b>                       | Supports 1 x external VGA port by a DB-9 connector<br>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 different 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<br>Supports Wake on LAN (WOL)<br>Supports Pre-boot Execution Environment (PXE)   |   |
|  | <b>HD Audio</b>                            | <b>Controller</b>   | VIA VT1708B High Definition Audio Codec                       |
| <b>Serial</b>                              | <b>Interface</b>                           | Support 2 x 3.5Φ Audio jack as Speaker 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-232/422/485, 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 Red color LED   |   |
|  | <b>HDD Activity LED</b>                    | 1 x Green 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>Front Panel External I/O connectors</b> | <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-3001-1E10A1  | 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<br>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<br>Supports over current protection<br>Supports under voltage protection   |                  |
|                                    | Fuse Rating                        | 7A @ 125V   |                  |
| Mechanical                         | Construction                       | Aluminum alloy<br>Dual removable front and rear faceplates  |                  |
|                                    | Mounting                           | Wall/Table/VESA mountable   |                  |
|                                    | Dimensions (W x H x D)             | 150 mm (w) x 46 mm (H) x 108 mm (D)<br>150 mm (w) x 66 mm (H) x 108 mm (D) (when system equipped with storage sub-chassis)  |                  |
|                                    | 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-3001-1E10A1)<br>0 °C up to 60 °C for 1.2GHz Nano™ processor version (P/N: AMOS-3001-1N12A1)<br>0 °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:<br>7Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis<br>With hard disk drive:<br>1Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis                                    |                  |
|                                    | Shock During Operation             | With IDE 44-pin flash disk on module:<br>70G, IEC 60068-2-27, half size, 11ms duration<br>With hard disk drive:<br>20G, IEC 60068-2-27, half size, 11ms duration  |                  |
|                                    | EMC Approved                       | CE, FCC, CCC Class A  |                  |
| Software Compatibility             | Operation System                   | Microsoft Windows XP, Windows 7<br>Windows XP Embedded, Ubuntu Linux  |                  |

## 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™        | 1.2GHz Nano™ 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™        | 1.2GHz Nano™ 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   |
|--------------|---|
| 99G63-020216 | 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-MXPELI-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   |

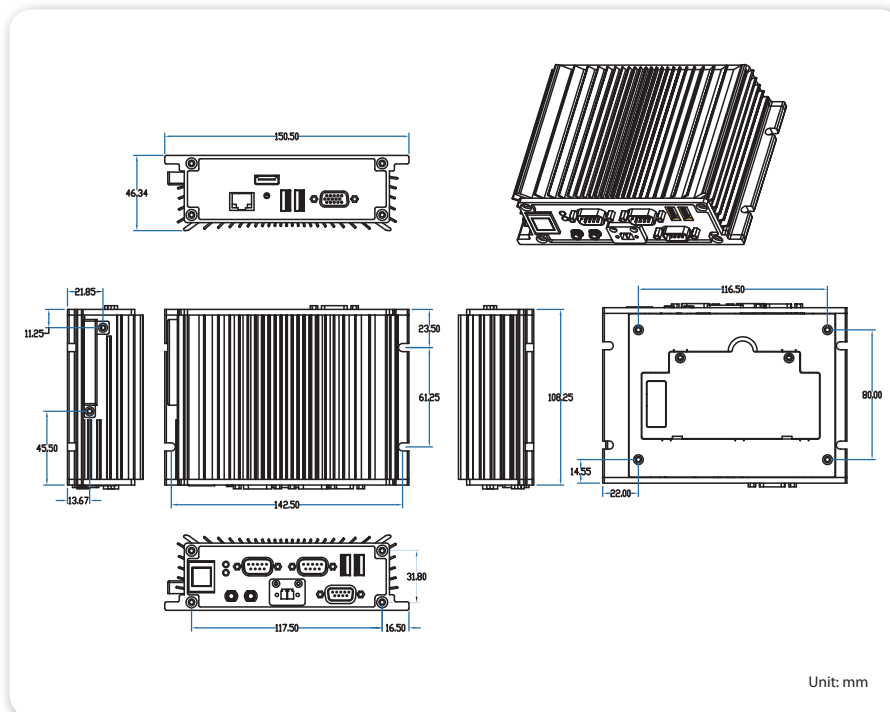
### Expansion Chassis

| 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                      |
| 4 x Washer rubber for table set up              |
| 1 x HDMI to DVI-D adapter cable                 |