

Fanless Systems

VIA AMOS-3001

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



Features

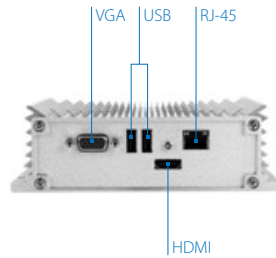
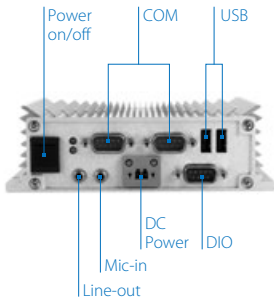
- A fanless, ultra compact embedded system designed to support the EPIA-P720 and EPIA-P820 embedded boards
- Supports comprehensive I/O functions on front and rear panels for diversified embedded applications
- Wide range of operating temperatures from -20°C up to 70 °C
- Shock resistant to 70G and vibration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

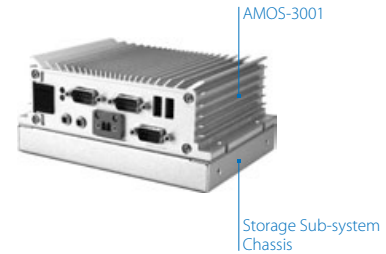
| Model | | AMOS-3001-1E10A2 | AMOS-3001-1N12A3 |
|--|--------------------------------|---|--|
| Computing System | Processor | 1.0GHz VIA Eden® ULV | 1.2GHz VIA Nano® E-Series |
| | Front Side Bus | 400 MHz | 800 MHz |
| | L2 Cache | 128KB | 1MB |
| | Chipset | VIA VX855 Media System Processor chipset | |
| | BIOS | AMI 4 MBit LPC 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 Chrome®9 HCM DX9 3D/2D graphics with MPEG-2, WMV9 & H.264 video decoding acceleration | |
| | Display Memory | Optimized shared memory architecture, supports up to 256 MB frame buffer using system memory | |
| | CRT Interface | Supports 1 x external VGA port by a DB-15 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 same 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 VT1708S High Definition Audio Codec |
| Serial | Interface | Support 2 x 3.5Φ Audio jack as Line-out and Mic-in | |
| | USB | 4 x USB ports, USB 2.0 compliant | |
| | Serial Ports | 2 x COM ports (1 x RS-232 and 1x RS-232/422/48, jumper selectable) | |
| DIO | Digital I/O | Supports 1 x D-Sub 9-pin connector of 8-bit Digital I/O + 5V power source (4-DI + 4-DO) | |
| | Storage | Flash Disk On Module (DOM) | Default supports 1 x IDE 44-pin Flash Disk On Module (DOM) bay |
| System Indicator | HDD | Optional supports 1 x 2.5" SATA hard disk drive bay (when system equipped with optional storage chassis) | |
| | Power Status LED | 1 x Green color LED | |
| Watch Dog Timer | HDD Activity LED | 1 x Red color LED | |
| | Output | System reset | |
| Front Panel External I/O connectors | Interval | Programmable 1 ~ 255 sec | |
| | 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 (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 |

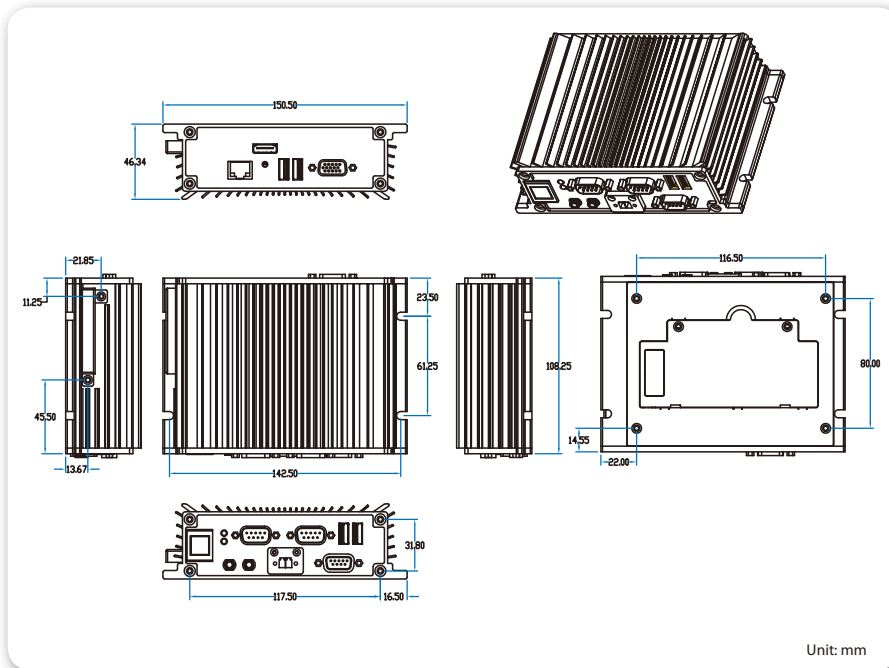
Embedded OS (Only available for T-Parts OEM service)

| 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