

Embedded Systems

NEW

VIA ART-3000

Compact Fanless Embedded System with VIA Nano™ CPU, 2 Gigabit LAN, 2 LVDS, 4 COM, DC-in 7~36V

Features

- Fanless operation in sealed construction
- Built-in VIA Nano™ processor with 1MB L2 Cache and low power consumption
- Dual-sided multiple I/O connectors for easy access
- Two 24-bit single channel LVDS ports and one VGA port for triple concurrent display with dual independent display
- Built-in two Gigabit Ethernet, four USB 2.0 ports, and four COM ports (two RS-232 and two RS-232/422/485, configured via BIOS setup), enabling comprehensive communication and connective capability
- Accepts a wide range of DC power inputs from 7 V~36 V
- Easy integration
Quick setup
Convenient maintenance

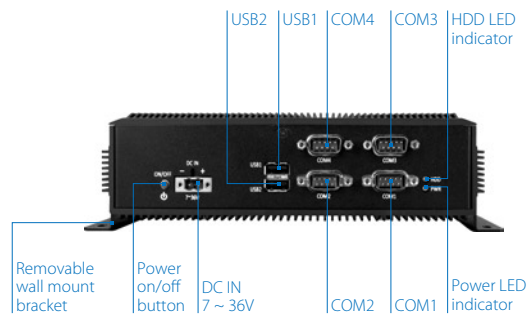


Specifications

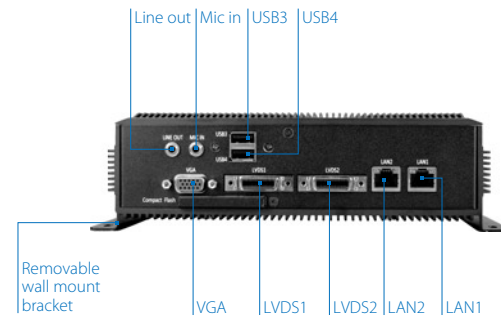
| Part Number | ART-3000-1N13A1 | |
|--------------------------|---|--|
| Processor System | Processor | 1.3 GHz VIA Nano™ |
| | Front Side Bus Speed | 800 MHz |
| | L2 Cache | 1 MB |
| | System Chipset | VIA VX800 Unified Digital Media IGP chipset |
| BIOS | Award BIOS 8MBit SPI Flash BIOS Supports Diskless Boot to BIOS ROM (Free DOS operation system environment) | |
| | System Power Management | Times Power on, ACPI supported |
| System Memory | Technology | 1 x DDR2 533/667 200-pin SDRAM SODIMM socket |
| | Max. Capacity | Up to 2GB memory size |
| Graphic | Controller | Integrated VIA Chrome 9™ HC3 DX9 3D/2D graphics with MPEG-2/4, WMV9 video decoding acceleration |
| | Display Memory | Optimized Unified Memory Architecture (UMA) Supports up to 256 MB frame buffer using system memory |
| | CRT Interface | Supports one VGA connector Pixel resolution support up to 1920 x 1200 |
| | LVDS Interface | Supports two 24-bit single channel LVDS with inverter control interface Supports panel resolution up to 1280 x 1024 for single channel LVDS LCD Built-in inverter control signals into the DB-26 connectors Built-in system internal 5V/3.3V LCD power switch (default at 3.3V) |
| | Triple Display | Supports triple concurrent display of CRT, LVDS1 and LVDS2 at the same timing and same resolution |
| | Dual Independent Display | Dual independent display support of CRT + LVDS 2, LVDS1 + LVDS2 |
| | Ethernet | Controller |
| Interface | | Supports two RJ-45 connectors as LAN1 and LAN2 Supports Wake On LAN (WOL) Supports Preboot Execution Environment (PXE) |
| HD Audio | Controller | VIA VT1708B High Definition Audio Codec |
| | Interface | Supports Line-out and Mic-in connectors |
| Serial | USB | 4 x USB ports as USB1, USB2, USB3 and USB4. USB 2.0 compliant |
| | Serial Ports | Fintek F81865 LPC I/O controller Supports 4 COM ports: • 2 x RS-232/422/485 as COM 1 and COM 2, configurable via BIOS setup • 2 x RS-232 by 2 x DB-9 connectors of COM 3 and COM 4 Supports RS-485 AutoFlow Control functions of COM1 ~ COM2 |
| Storage interface | HDD | 1 x 2.5" SATA interface hard disk drive bay |
| | SSD | 1 x Socket support type I/II CompactFlash disk |



Front Panel External IO



Rear Panel External IO



Specifications

| | | |
|---------------------------------------|---|---|
| Part Number | ART-3000-1N13A1 | |
| Watchdog Timer | Output | System reset |
| | Interval | Programmable 1~255 sec |
| System Indicator | Power Status LED | 1 x Green color LED |
| | HDD Activity LED | 1 x Red color LED |
| Front Panel External I/O ports | LED Indicator | 1 x PWR LED, and 1 x HDD LED |
| | Quad COM | 2 x RS-232/422/485 ports as COM 1 and COM2 by 2 DB-9 connectors 2 x RS-232 ports as COM3 and COM4 by 2 DB-9 connectors |
| | Dual USB 2.0 | 2 x mini-DIN connectors as USB 1 and USB2 |
| | Power Input Connector | 1 x 2-pole Phoenix power input connector |
| | Power On/Off Switch | 1 x ATX Power On/Off button |
| Rear Panel External I/O ports | Dual Gigabit Ethernet | 2 x RJ45 connectors as LAN1 and LAN2 |
| | Dual LVDS | 2 x DB-26 connectors as LVDS1 and LVDS2 |
| | VGA | 1 x VGA port by a D-Sub 15-pin connector |
| | Audio | 2 x 3.5Φ Audio Jack connectors as Line-out, and Mic-in |
| | Dual USB 2.0 | 2 x mini-DIN connectors as USB3 and USB4 |
| Power Supply | Power Consumption | Typical 18.5 W, Maximum 25.8 W |
| | Input Voltage | Accepts wide range of power input of 7V _{DC} ~ 36V _{DC} Typical power input 7 V _{DC} @ 2.64A 12 V _{DC} @ 1.54A 16 V _{DC} @ 1.15A 19 V _{DC} @ 0.97A 24 V _{DC} @ 0.77A 36 V _{DC} @ 0.51A |
| Mechanical | Construction | Aluminum alloy |
| | Mounting | VESA mounting Table/wall mounting |
| | Dimensions (W x H x D) | With table/wall-mounting bracket: 233 x 65.2 x 123.5 mm Without table/wall-mounting bracket: 206.5 mm x 58 mm x 123.5 mm |
| | Weight | Net 1.5 Kg |
| Environmental Specification | Operation Temperature | With CompactFlash disk only: -20°C up to 60 °C With 2.5-inch hard disk drive: 0°C up to 45 °C |
| | Relative Humidity | 0% ~ 90% @ 45 °C, non-condensing |
| | Vibration Loading During Operation | With CompactFlash disk only: 5Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis With 2.5-inch hard disk drive: 1Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1 Oct./min, 1hr/axis |
| | Shock During Operation | With CompactFlash disk only: 50G, IEC 60068-2-27, half sine, 11ms duration With 2.5-inch hard disk drive: 20G, IEC 60068-2-27, half sine, 11ms duration |
| | EMC Approved | CE/FCC Class A, CCC |
| | Safety Approved | CB, CCC |

Ordering Information

| Part Number | System Built-in CPU | Description |
|-----------------|---------------------|---|
| ART-3000-1N13A1 | 1.3GHz Nano™ | Fanless Embedded System with 1.3GHz Nano™ CPU, 1 x VGA, 2 x LVDS, 2 x RS-232/422/485 , 2 x RS-232, 2 x GigaLAN, 4 x USB DC-in 7~36V |

Optional Accessories

External AC-to-DC Adapter and Power Cable

| Part Number | Description |
|--------------|---|
| 99G63-020186 | AC-to-DC adapter, DC 19V, 90W with Phoenix Power Plug |
| 99G33-02058C | Power Cord, 2-pin, 180 cm, USA type |
| 99G33-02058C | Power Cord, 2-pin, 180 cm, Europe type |

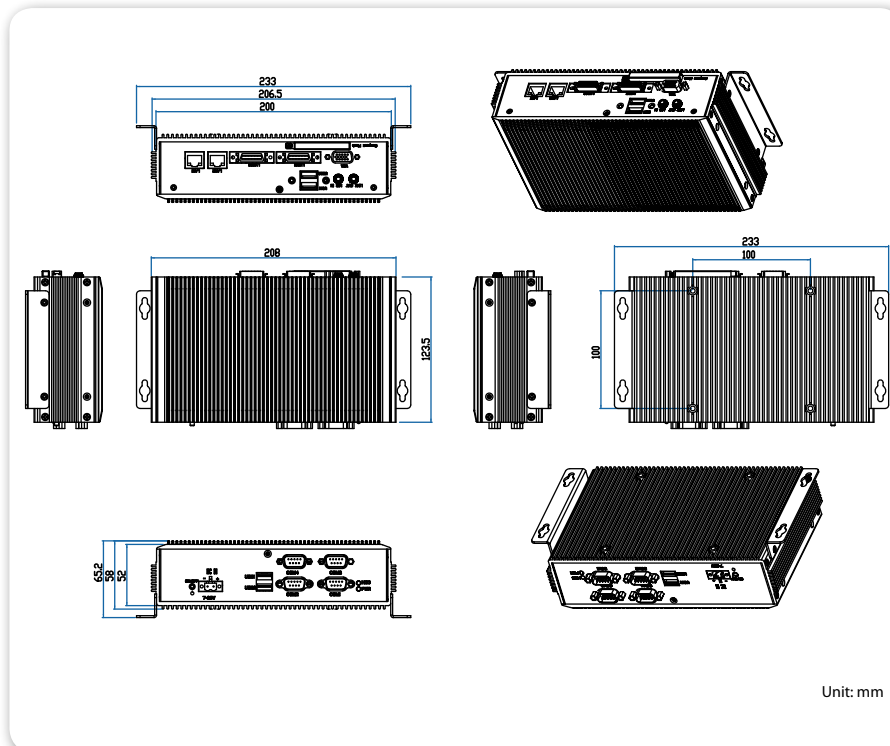
Certificated RAM Module, Flash Disk, and 2.5" Hard Disk Drive

| Part Number | Description |
|--------------|--|
| 99G06-010328 | 512MB DDR2 667MHz, SDRAM SODIMM, industrial grade, 0 ~ 85 °C |
| 99G06-010338 | 1GB DDR2 667MHz, SDRAM SODIMM, industrial grade, 0 ~ 85 °C |
| 99G61-060011 | 1GB Compact Flash Disk, industrial grade, -40 °C ~ 85 °C |
| 99G61-060021 | 2GB Compact Flash Disk, industrial grade, -40 °C ~ 85 °C |
| 99G61-060031 | 4GB Compact Flash Disk, industrial grade, -40 °C ~ 85 °C |
| 99G61-020114 | 250GB, Fujitsu 2.5" SATA HDD, 5400 RPM |

Embedded OS (Only available for OEM service)

| Part Number | Description |
|------------------|---|
| POS-MXPELI-ENS04 | Windows XP Embedded SP3 Image & License |
| POS-MCE6LI-ENS04 | Windows CE 6.0 Professional Image & License |
| VOS-UMELXI-ENS04 | Linux, MID Edition, OS Image only |

Dimensions



Packing List

- 1 x ART-3000 unit
- 1 x Driver & Utility CD
- 1 x SATA cable
- 1 x SATA power cable
- 1 x Power cable, 2-pole Phoenix plug to DC-Jack
- 1 x Heatsink for SODIMM
- 1 x 0.5cc Thermally Conductive Dispensable Gel in tube syringe