

AI-AVS1000-GTX1030

GPU-powered AI Computers with NVIDIA® GeForce GTX 1030 MXM GPUs and Intel® Core™ i3 Processors



Introduction

AIS compact series industrial AI and GPU-powered embedded computers are designed to handle the basic deep learning, computer vision, image recognition, data mining, and robotics control tasks with ease, integrating Intel® Core™ i3-7300T processor with 3.50 GHz and 4M cache, NVIDIA® GeForce® GTX 1030 MXM GPU with 384 CUDA cores and 2GB dedicated VRAM, 8 display interfaces with support for 8K resolution, dual-channel DDR4 2133MHz memory up to 32GB, dual Gigabit Ethernet, multiple PCI/PCIe expansion, multiple I/O connections, 3 SIM sockets, 6 USB 3.0, 32 isolated DIO, 10V to 36V DC power input with 80V surge protection, ignition power control, smart manageability, compliance with CE, FCC, EN50155, EN50121-3-2, IEC 60068-2-27, and IEC 60068-2-64, and is built to withstand some of the toughest environments with its -25°C to 60°C (-13°F to 140°F) operating temperature range.

Specifications

System Hardware	
Processor (Core/Thread/Frequency/TDP)	Intel® Core™ i3-7101TE Processor (2/4/3.4 GHz/35W)
Chipset	Intel® C236
BIOS	AMI
SIO	IT8786E
Memory	8 GB DDR4 2133MHz SO-DIMM
I/O Interface	
Serial	4 x COM RS-232/422/485 (ESD 8KV)
USB	6 x USB 3.0 (6 x External, 1 x Internal) 1 x USB 2.0 (Internal)
DIO	32 x Isolated DIO : 16 x DI, 16 x DO
LED	Power, HDD
SIM Card	3 x SIM Card Socket (External)
Expansion	
Mini PCIe	3 x Mini PCIe Socket: 3 x Full-size for PCIe/USB/External SIM Card/mSATA
PCI/PCIe	1 x PCI/PCIe x4 Slot
SUMIT A,B	2 x SUMIT Slot (Optional)
Graphics	
Graphics Processor	NVIDIA GeForce® GTX 1030 (MXM Module)
Interface	Up to 8 x Display Interfaces : - 3 DVI : Up to 1920 x 1200 @ 60Hz - 3 DisplayPort : Up to 7680 x 3840 @ 60Hz - 1 DisplayPort : Up to 4096 x 2304 @ 60Hz - 1 HDMI : Up to 4096 x 2160 @ 60Hz

Features and Benefits

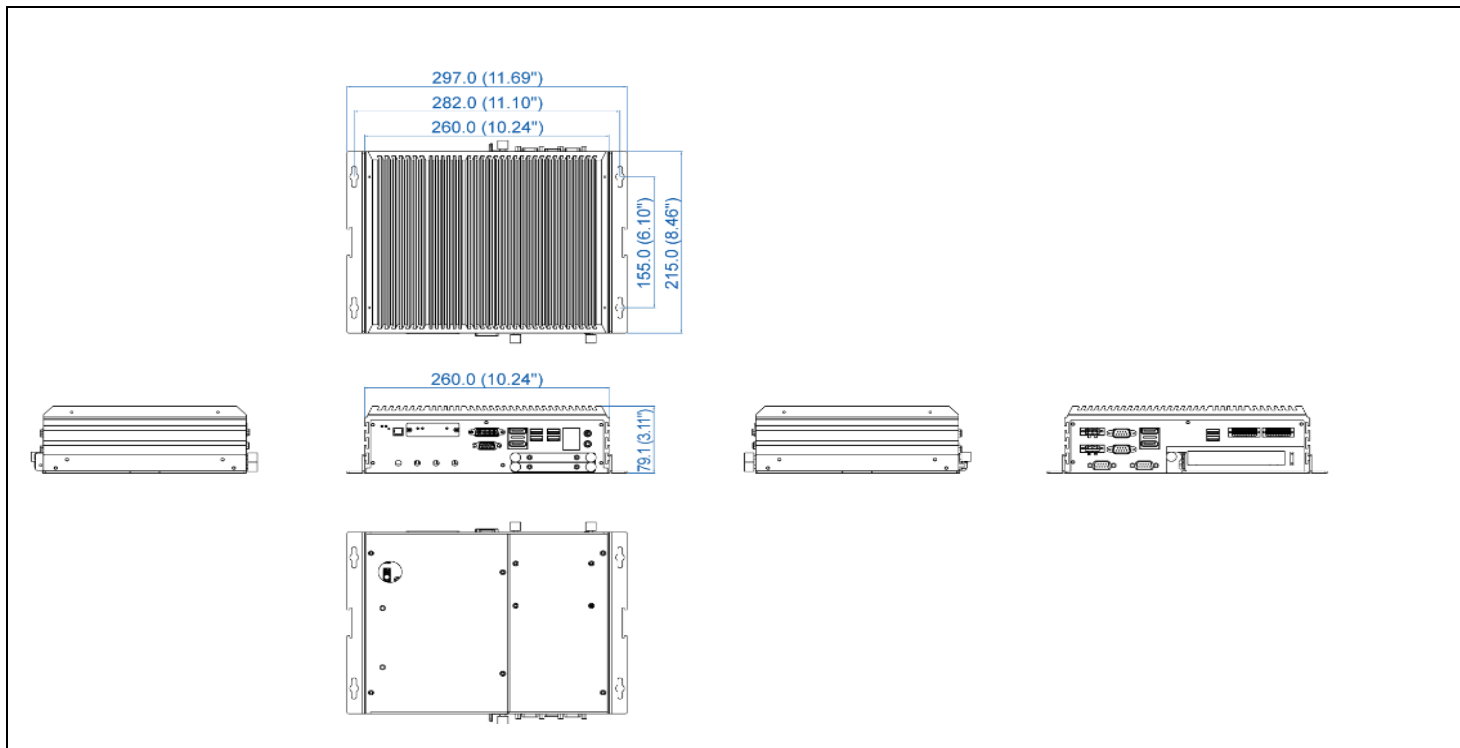
- Fanless, -25°C to 60°C Operating Temperature
- Workstation-grade 7th Generation Intel® Xeon®/Core™i3 Processor (Kaby Lake) with C236
- Compact NVIDIA® GeForce® GT 1030 MXM Graphics Engine Supports NVIDIA® Pascal™ GPU Architecture with 8K Resolution
- 1 x VGA, 1 x DVI, up to 6 x DisplayPort and 7 x Independent HD Displays
- 2 x Front-access 2.5" SSD Tray, 1 CFAST Socket, 2 SATA III, 6 USB 3.0, 4 COM
- 3 x SIM Card Socket for WiFi/3G/4G/LTE/GPRS/UMTS
- Expansion: 1 x PCI/PCIe Slot, 3 x Mini PCIe, 2 x Optional SUMIT A, B
- 32 x Isolated DIO, 10V to 36V DC Power Input w/80V Surge Protection
- Configurable Ignition Power Control

Storage	
SATA	4 x SATA III (6Gbps) Support S/W RAID 0, 1, Default 1 x 240GB SSD
mSATA	3 x SATA III Mini PCIe Type, 6Gbps
Storage Device	1 x CFAST Socket, Push-in/Push-out Ejector 2 x Front-access 2.5" SSD/HDD Tray
Audio	
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 x Mic-in, 1 x Line-out
Ethernet	
LAN 1	Intel® I219LM GigE LAN Supports iAMT 11.0
LAN 2	Intel® I210 GigE LAN
Power	
Power Input	10V to 36V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional Infineon SLB9665 Supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per Step
Smart Management	Wake on LAN, PXE Supported
HW Monitor	Monitoring Temperature, Voltages, Auto Throttling Control when CPU Overheats
Software Support	
OS	Windows 10, Windows 7, Linux
Mechanical	
Dimension (W x L x H)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	4.6 kg (10.14 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount - 2U Rackmount (Optional)
Environmental	
Operating Temperature	-25°C to 60°C (-13°F to 140°F)
Storage Temperature	-40 to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 60°C
Shock	IEC 60068-2-27 SSD : 50G @ Wallmount, Half-sine, 11ms
Vibration	IEC 60068-2-64 SSD : 5Gm, 5Hz to 500Hz, 3 Axis

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Unit: mm

Dimensions



Ordering Information

Part Number	Description
WS7P	Windows Embedded Standard 7 P 64-bit
W7P	Windows 7 Professional Embedded 64-bit
W10IOTV	Windows 10 IoT Enterprise LTSB Value

I/O Layout

