Ei-A100

4K Digital Signage Player with One Intel Movidius VPU for AI Facial Recognition

Features

- Intel® Atom™ E3950 and Intel® Movidius Myriad X VPU MA2485 x1 built-in
- Integrated NVIDIA® GeForce® GT 1030 graphics for ultra HD playback
- Intel® OpenVINO™ toolkit supported
- Integrated with Edge AI Suite
- Quad independent HDMI outputs
- Reserve TPM 2.0 for security application
- Signage content management software built-in
- Low power & fanless signage player

WISE-PaaS/SignageCMS WISE-DeviceOn WISE-Marketplace

Introduction

Advantech Ei-A100 is an Edge AI Inference Systems of Ultra HD signage player. It is powered by Intel® Atom™ Processor E3950, Movidius Myriad X VPU and NVIDIA® GeForce® GT 1030 graphic engine to help accelerate deep learning inference at the edge. Ei-A100 not only supports four HDMI independent display in 4K@30HZ playback, but also support single video content in 4K@60HZ playback via HDMI 2.0 port. Ei-A100 is the ideal solution for AI-based multi-display applications in stores, stadiums, hotel lobbies, restaurants, and other public spaces.

OpenVINO™ Toolkit

- Model optimizer
- Inference engine
- Supports TensorFlow, Caffe, mxnet, ONNX

Enhanced Inference Efficiency

Scaling AI inference workloads with modular, plug & play design

VEGA-320 built-in

- Single MA2485 VPU
- M.2 2230 (Key A+E)
- PCIe Gen2 x1, USB 2.0

AI Facial Recognition Feature Highlights

High Precision Engine

- 98.5% accuracy rate
- 10E-6 error rate

Customer Behavior Analytics

- Dashboard for decision makers

Real-time Identification & Notification

- Face identity & labeling
- Performance optimization across CPU/VPU

Customer Management

- Easy enrollment
- VIP/Watchlist mgt

Specifications

		Ei-A100
Processor System	CPU	Intel® Atom™ Processor E3950
	System Chipset	Integrated in CPU
Memory	Technology	2 x DDR3L 204-pin DIMM, Max. 16GB, Pre-installed 4GB
Graphic & Display Tech.	Graphic Engine	HDMI-1 and HDMI-2: NVIDIA® GeForce GT 1030 HDMI-3 and HDMI-4: Intel® HD Graphics 505
	Resolution	HDMI 2.0: up to 3840 x 2160 @ 60Hz HDMI 1.4: up to 3840 x 2160 @ 30Hz (HDMI-4 supports CEC function)
	Output	2 x HDMI 1.4, 2 x HDMI 2.0, up to 4 simultaneous outputs
	Video Format	Decode for H.264,VC-1,WMV9,H.265/HEVC,VP8,VP9,JPEG/MJPEG,MPEG2(only for Yocto project Linux) Encode for H.264,MVC,WMV9,H.265/HEVC,VP8,VP9,JPEG/MJPEG
AI Engine	VPU	One Intel Movidius Myriad X MA2485 (1 x VEGA-320-01A1 Built-in)
Storage	SATA	1 x 2.5-inch SATA III HDD/SSD (Pre-installed 64GB SSD)
I/O Interface	LAN	1 (RJ-45)
	USB 2.0/USB 3.0	2/2
	Audio	1 x audio phone jack for Mic In, 1 x SPDIF/Line Out (supports jack sensing via OS settings)
	Serial	1 x RS-232
Expansion	Mini PCIe	1 x Full Size MiniPCIe support mSATA; w/SIM holder, support WWAN module (USB interface) #1
Trusted Platform Module	TPM 2.0	Option
Power Requirement	Input Voltage	19 V DC in (ATX/AT mode, default ATX)
Physical Characteristics	Mounting	Wall mount kits for LCD or plasma panels
	Dimensions (W x H x D)	220 x 40 x 150 mm
	Weight	1.7 kg
Environment	Operating Temperature	0 ~ 50 °C with 0.7m/s air flow
Software Development Kit	Operating System	Pre-installed Microsoft Windows 10
	Linux	By project
Certification	EMC	CE, FCC Class B, BSMI
	Safety	UL, CCC, BSMI, CB

#1 SIM holder is hardware interface for wireless communication integration only. System level RF certification is not available.

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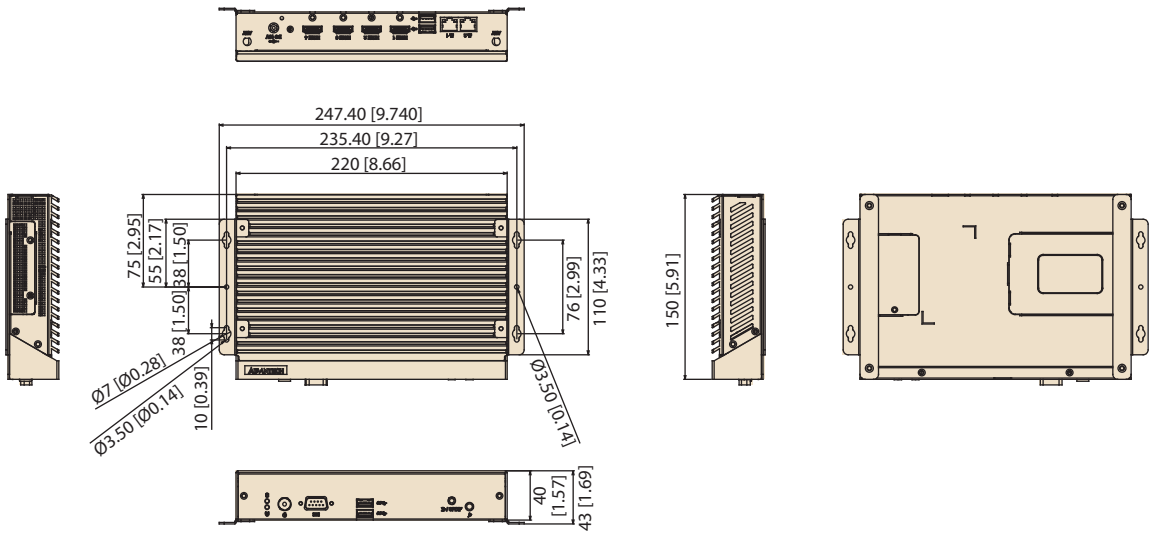
All product specifications are subject to change without notice.

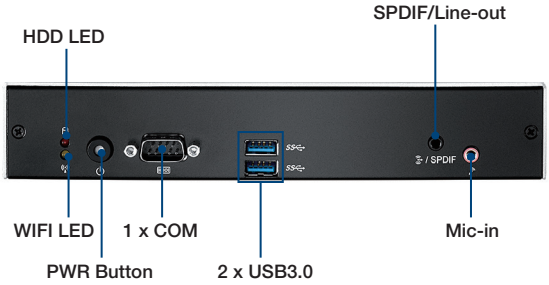
Last updated: 16-Dec-2020

Dimensions

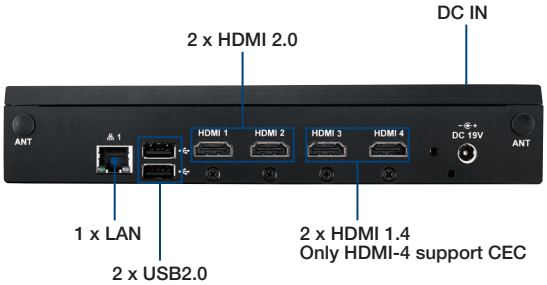
Unit: mm [inch]



Front View



Rear View



Packing List

Part Number	Description
-	1 x Ei-A100 unit
-	1 x Power adapter (DC 19 V/3.42A 65 W)
-	1 x Bracket set for fixing power adapter plug
-	2 x Mounting brackets
-	2 x User manual
-	1 x Content management software

Power Cord

Part Number	Description
1700001524	3-pin power cord (US)
170203183C	3-pin power cord (EU)
170203180A	3-pin power cord (UK)
1702031836	3-pin power cord (AU)
1700008921	3-pin power cord (Japan)
1700019146	3-pin power cord (China)

Ordering Information

Part Number	Description
EI-A100-S61A1	Intel E3950 with 1x Movidius VPU and facial recognition

Mounting Kits

Part Number	Description
AMK-V005E	VESA mount kit (generic for ARK-DS/DS)