AIR-020X

Al Inference System Based on NVIDIA® Jetson $^{\mathsf{TM}}$ Xavier NX



Features

- Extreme Compact and performance AI box up to 21 TOPS AI computing
- NVIDIA® Jetson™ Xavier NX built-in
- 12~24V wide power and -10~55 °C wide temp. supported
- Multiple IO ports: Dual LAN, DIO, 2x COM, 2x USB 3.2 and USB type C
- M.2 2280 128GB storage built-in
- Edge Al Suite Al Utility Support for pre-trained models and deep learning
- Linux Ubuntu 18.04 LTS and JetPack 4.5.1 preload
- IP40 Design compliance
- Qualified for Edge AI SRP of WISE-DeviceOn





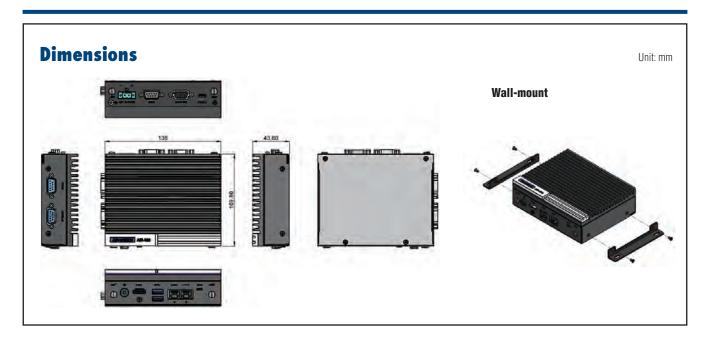




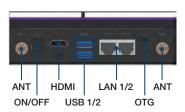


Specifications

specifications						
	CPU	ARM v8.2 Six core Carmel processors, Max. 1.9 GHz				
	GPU	Volta 384 CUDA core and 48 Tensor cores				
Processor System	Al Performance Reference	21 TOPS (INT8)				
	Memory	8 GB LPDDR4				
	Flash	16G eMMC				
	Interface	RJ-45				
Ethernet	Controller	Intel® i210AT, Nvidia SoM				
	Speed	2 x Gigabit Ethernet (10/100/1000 Mbps)				
Display	HDMI	1 x HDMI (Max. resolution 3840 x 2160 @ 60Hz)				
	USB	2 x USB 3.2 Type A 1 x USB 3.2 Type C				
	OTG USB	1 x Micro USB (for system recovery only)				
IO Ports	CANBus	1 x DB9				
	DI/D0	8 bit				
	COM	2 x RS-232/RS-422/RS-485				
Expansion	MiniPCle	1 x Full-size mPCIE with Nano SIM slot (USB/PCIe signal)				
Storage	M.2 2280	1 x M.2 2280 (M Key), 128GB storage built-in				
Power	Power Supply	Power adaptor 65W, optional				
rowei	Power Type	ATX/AT mode, ATX default				
	Operational Temperature	$-10 \sim 55$ °C with 0.7 m/s air flow (non-throttling)				
Environment	Operating Humidity	95% @ 40 °C (non-condensing)				
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis				
	Dimensions (W x D x H)	138 x 110 x 43.6 mm				
Mechanical	Weight	0.85 kg				
	Mounting Support	Wall mounting				
Operating System	Linux	Ubuntu 18.04 LTS with JetPack 4.5.1				
Software Support	Software API	Edge Al Suite/FaceView compatible				
Certifications	EMC/Safety	CE/FCC Class B, CB, UL, CCC and BSMI (No RED Certificate)				



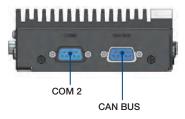
Front Panel I/O Mechanical Layout



Rear Panel I/O Mechanical Layout



Side Panel I/O Mechanical Layout



Ordering Information

Par	t No.	CPU	VPU	Memory	Storage	HDMI	GbE	USB	CANBus	RS-232/422/485	DIO	Power input	Operating Temperature
AIR-	-020X-S9A1	ARM v8.2, six cores	Volta 384 CUDA core and 48 Tensor cores	8GB LPDDR4 built-in	16GB eMMC onboard, 128GB M.2 built-in	1	2	3	1	2	1	12-24V _{DC}	-10~55 °C

Packing List

Part Number	Description	Quantity
AIR-020X-S9A1	NVIDIA AI Inference System	1
1700028866-01	Micro USB cable 40cm for system recovery	1
_	Simplified Chinese User Manuel	1

Optional

Part Number	Description
96PSA-A65W19P2-1	Power adapter 19V 65W
1700001524	Power Cord UL 3P 10A 125V 183cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183cm (China)
AMK-W005	Wall mount kit

Last updated: 19-Aug-2022

WISE-DeviceOn

Edge AI OTA and Container Management

WISE-DeviceOn End-to-End Solution for Edge AI

Even if all datasets, algorithms, trainings, UI/UX, and more are functioning, how can you easily deploy an Al application to hundreds, or thousands, of inference devices in production? How can you efficiently manage AI models (software updates, CI/CD), in addition to all remote, hardware devices, such as sensors?



Solution Advantages



Performance Booster

- Inference optimization
- Open Neural Network Compiler (ONNC)
- Save over 45% DRAM consumption



Fleet Management

- Remote batch control for power management, reboot, terminal and screenshot
- Real-time monitoring, diagnostics and notification
- Over 10,000 devices around the globe



Container and OTA

- Streamlined deployment process
- Docker container management
- Software OTA (over-the-air) updates



AI Security

- Al containers deployed via Azure Container Registry and Harbor
- Secured data connection (TLS/SSL)
- Integrity protection based on digital signature