

AIR-020R

AI Inference System Based on NVIDIA® Jetson Orin™ Nano



WISE-DeviceOn



CE FCC

Features

- Extreme Compact and performance AI box up to 67 TOPS AI computing
- NVIDIA® Jetson Orin™ Nano built-in
- 12~24V wide power and -10~50 °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 AI Suite AI Utility Support for pre-trained models and deep learning
- Linux Ubuntu OS and JetPack SDK preload
- IP40 Design compliance

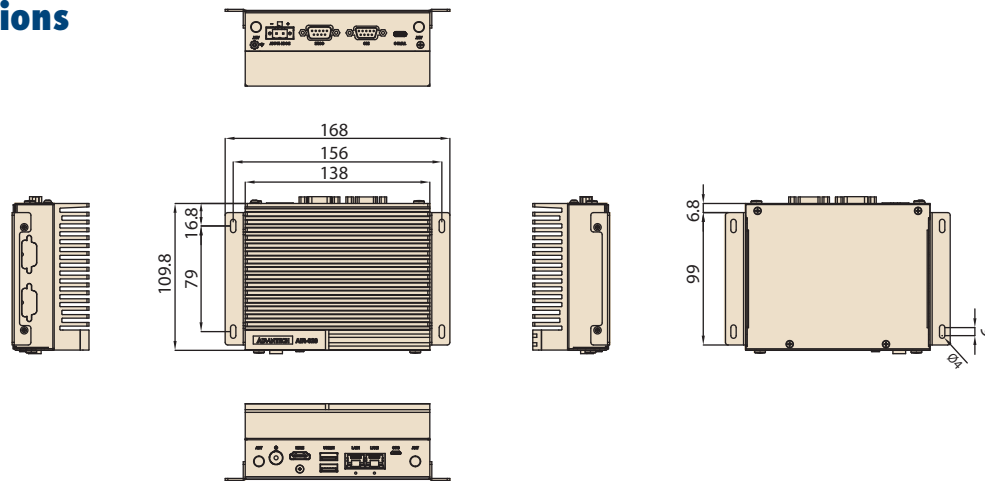


Specifications

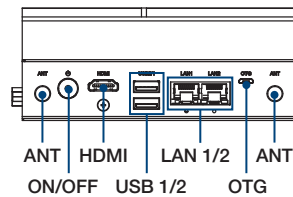
Model		AIR-020R-S7A1U	AIR-020R-B7A1U
Platform		NVIDIA Jetson Orin™ Nano 8GB	NVIDIA Jetson Orin™ Nano 4GB
Processor System	CPU	6-core NVIDIA Arm Cortex A78AE v8.2 64-bit	
	GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
	AI Performance Reference	67 TOPS	34 TOPS
	Memory	8GB LPDDR5	4GB LPDDR5
Ethernet	Interface	RJ-45	
	Controller	Intel® i210AT, Nvidia SoM	
	Speed	2 x Gigabit Ethernet (10/100/1000 Mbps)	
Display	HDMI	1 x HDMI (Max. resolution 3840 x 2160 @ 30Hz)	
IO Ports	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)	
	CANBus	1 x DB9	
	DI/DO	8 bit	
	COM	2 x RS-232/RS-422/RS-485	
Expansion	MiniPCIe	1 x Full-size mPCIe with Nano SIM slot (USB 2.0/PCIe Gen2 x1)	
Storage	M.2 2280	1 x M.2 2280 (M key PCIe Gen3 x4), 128GB storage built-in	
Power	Power Supply	Power adaptor 90W, optional	
	Power Type	ATX/AT mode, ATX default	
Environment	Operational Temperature	-10 ~ 50 °C with 0.7 m/s air flow (MAXN_Super up to 25W)	
	Operating Humidity	95% @ 40 °C (non-condensing)	
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis	
Mechanical	Dimensions (W x D x H)	138 x 110 x 56.6 mm	
	Weight	1.16 kg	
	Mounting Support	Wall mounting	
Operating System	Linux	Ubuntu 22.04 LTS with JetPack 6.2 (support super mode)	
Software Support	Software API	Edge AI SDK compatible	
Certifications	EMC/Safety	CE/FCC Class B, CB, UL, CCC and BSMI (No RED Certificate)	

Dimensions

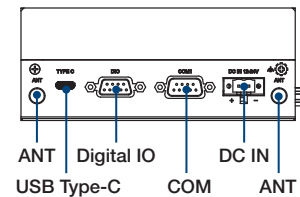
Unit: mm



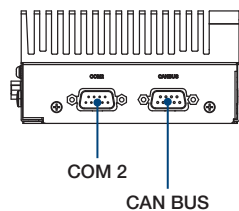
Front Panel I/O Mechanical Layout



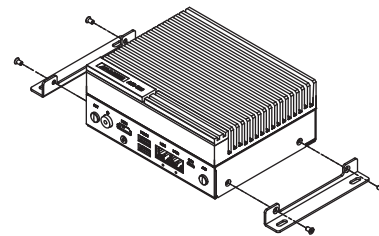
Rear Panel I/O Mechanical Layout



Side Panel I/O Mechanical Layout



Wall-mount



Ordering Information

Part No.	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	Storage	HDMI	GbE	USB	CANBus	RS-232/422/485	DIO	Power input	Operating Temperature	Remark
AIR-020R-S7A1U	Orin Nano	8GB LPDDR5	N/A	128GB M.2 built-in	1	2	3	1	2	1	12-24V _{DC}	-10~50 °C	Made in TW
AIR-020R-B7A1U	Orin Nano	4GB LPDDR5	N/A		1	2	3	1	2	1	12-24V _{DC}	-10~50 °C	Made in TW
AIR-020R-S7A2U	Orin Nano	8GB LPDDR5	N/A	N/A	1	2	3	1	2	1	12-24V _{DC}	-10~50 °C	Made in TW, W/O SSD
AIR-020R-B7A2U	Orin Nano	4GB LPDDR5	N/A		1	2	3	1	2	1	12-24V _{DC}	-10~50 °C	Made in TW, W/O SSD

*The system OS will be pre-installed in a 128GB NVMe M.2 SSD.

Packing List

Part Number	Description	Quantity
AIR-020	NVIDIA AI Inference System	1
1652000099	Phoenix connector counterpart	1
1700028866-01	Micro USB cable 40cm for system recovery	1
-	Simplified Chinese User Manual	1

Optional

Part Number	Description
XARK-ADP-90MDH	Power Adapter 19V 90W
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
1700028866-01	1x Micro USB cable 40cm (flashing cable)

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 AI 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

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

👉 Find More Information about [WISE-DeviceOn End-to-End Solution for Edge AI](#)