

MIC-713-ON

AI Platform Based on NVIDIA® Jetson Orin™ Nano



Features

- Compact fanless design
- Embedded NVIDIA® Jetson Orin™ Nano up to 20 TOPS
- Supports 2 x GbE, 6 x USB 3.2 Gen 2
- Supports 1 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports Allxon 24/7 remote monitoring and OTA deployment



Specifications

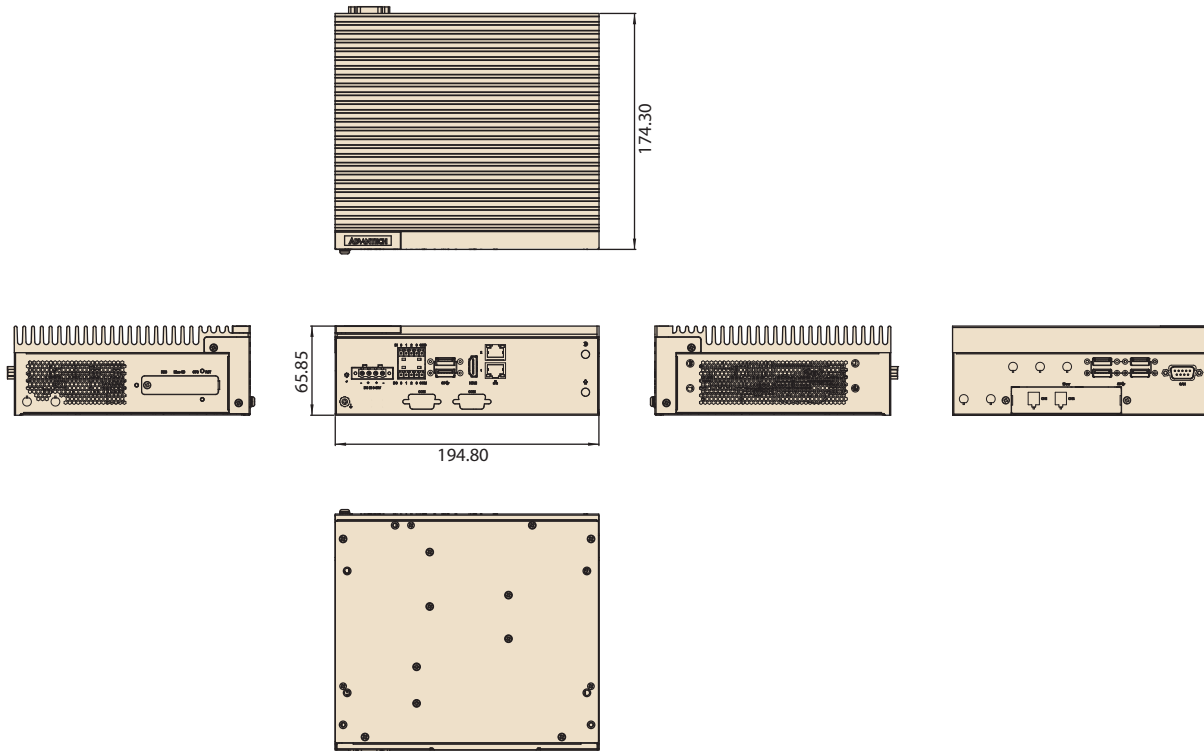
		NVIDIA® Jetson Orin™ Nano
Processor System	CPU	8GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU 4GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU
	GPU	8GB: 1024 core NVIDIA Ampere GPU with 32 Tensor Cores 4GB: 512 core NVIDIA Ampere GPU with 16 Tensor Cores
	Memory	8GB: 8GB LPDDR5 4GB: 4GB LPDDR5
	Flash	-
I/O	Ethernet*	2 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	External: 6 x USB 3.2 Gen 2
	Digital I/O	4-ch DI, 4-ch DO
	Serial Port (Optional)	2 x RS-232/422/485 (On-board pin header reserved)
	CANBus	1
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	1 x mPCIe (Signal: PCIe + USB 2.0)
	M.2	1 x M.2 3052 (Signal: USB)
	SIM	2 x Nano SIM slots
	TPM (Optional)	1 x TPM 2.0
	GMSL (Optional)	2-ch GMSL2.0 with FAKRA connectors
Storage	M.2	1 x M.2 2280 (Signal: PCIe x1, Gen 4)
	SD Card	1 x Micro SD
Power	Mode	AT
	Input Voltage	9 – 36 V _{DC}
Environment	Operating Temperature**	-10 – 60 °C with 0.7 m/s airflow
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3 Grms @ 5 – 500 Hz, random, 1 hr/axis
	Shock	10G / 11ms
Mechanical	Dimensions (W x D x H)	194.8 x 174.3 x 65.85 mm (7.67" x 6.86" x 2.59")
	Weight	2.05 kg (w/o packing material)
	Installation	Desktop
BSP	Jetpack	Above 5.1
Certifications		CE/FCC/UKCA/CB/UL/BSMI/CCC (No RED certification)

* PoE function by request.

** Depending on the installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see user documentation.

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	NVMe**
MIC-713-ON3A1	Orin Nano	8GB	N/A	128GB
MIC-713-ON2A1	Orin Nano	4GB	N/A	128GB

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

Packing List

Part Number	Description	Quantity
MIC-713-ON	MIC-713 Fanless system	1
1652005204	DI/DO Terminal Block	2
1652003234	DC-In Terminal Block	1
1700023619-01	Micro USB cable for System recovery	1
1930005673-11	Screw M3x4.5L for GMSL card	3
1960110505N001	Mounting Bracket	2
1930007259-01	Screw M4x4L for mounting bracket	4

Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V C6
96PSA-A90W190T-3	Power Adapter 100-240V 90W 19V C6
96PSA-A120W24T2-4	Power Adapter 100-240V 120W 24V C14
96PSA-A150W19P4-4	Power Adapter 100-240V 150W 19V C14
96PSA-A230W24P4-3	Power Adapter 100-240V 230W 24V C14
1700001524	Power Cord UL 3P 10A 125V C5 183 cm (US)
170203183C	Power Cord EU 3P 2.5A 250V C5 183 cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V C5 183 cm (UK)
1702031836	Power Cord SAA 3P 10A 250V C13 183 cm (AU)
1700008921	Power Cord PSE 3P 7A 125V C5 183 cm (JP)
1700019146	Power Cord CCC 3P 2.5A 250V C5 183 cm (CN)
98RV710AL00	Allxon OOB module
PCA-TPMSPI-00A1	PCA-TPMSPI-00A1
1700019968	COM port cable (2 ports)
1700027920-01	Audio port cable (1 x Line-In + 1 x Mic)
968DD00294	2ch GMSL SW video card
1960065854N001	i Door bracket for PCM series add-on cards