MIC-733-AO

AI Inference System Based on NVIDIA® Jetson AGX Orin™



Features

- Compact fanless design
- Embedded with NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- Supports 4 x GbE (optional PoE), 4 x USB 3.2 Gen 2 (10 Gbit/s)
- Supports 2 x mPCIe, 2 x Nano SIM slots
- Supports AIIxon 24/7 remote monitoring and OTA deployment; Azure Certified Devices

Specifications

		NVIDIA® Jetson AGX Orin™	
		MIC-733-A05A1	MIC-733-A06A1
Processor	NVIDIA Jetson Series	AGX Orin 32G	AGX Orin 64G
	CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 2MB L2 + 4MB L3	12-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 3MB L2 + 6MB L3
	GPU	1792-core NVIDIA Ampere GPU with 56 Tensor Cores, Maximum Operating Frequency: 930 MHz	2048-core NVIDIA Ampere GPU with 64 Tensor Cores] Maximum Operating Frequency: 1.3GH
	AI Performance Reference	Up to 200 TOPs	Up to 275 TOPs
	Memory	32GB 256-bit LPDDR5 DRAM	64GB 256-bit LPDDR5 DRAM
I/O	Ethernet	4 x 10/100/1000 Mbps (Optional PoE support, IEEE 802.3af/at)	
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)	
	USB	External: 2 x USB 2.0, 4 x USB 3.2 Gen 2 Internal: 1 x USB 2.0	
	Digital I/O	4-ch DI, 4-ch DO	
	Power Switch	1 x Power ON/OFF Button	
	Serial Ports	2 x RS-232/422/485 (On-board pin header)	
	OTG USB	1 x Micro USB	
Expansion	iModule (Optional)	1 x PCIe x8 (MIC-75M10-00A2)	
	Mini PCIe	2 x mPCIe (Signal: PCIe+USB)	
	SIM	2 x Nano SIM slots	
	M.2	1 x M.2 3052 (B-Key, Signal: USB)	
	TPM (Optional)	1 x TPM 2.0	
	GMSL (Optional)	2-ch GMSL2.0 with FAKRA connectors	
	iDoor (Optional)	1 x iDoor bracket reserve	
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, Signal: PCIe x4)	
	SD Card	1 x Micro SD slot	
Power	Mode	AT/ATX (Default AT)	
	Input Voltage	9 ~ 36 V_{DC}, 16-4A	
Environment	Operating Temperature	-10 ~ +60 °C with 0.7 m/s airflow (MaxN mode)	
	Operating Humidity	95% @ 40 °C (non-condensing)	
	Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis	
	Shock	10G / 11 ms	
Mechanical	Dimensions (W x D x H)	Core Module: 192 x 230 x 87 mm (7.55" x 9.05" x 3.43") Plus MIC-75M10: 192 x 230 x 111 mm (7.55" x 9.05" x 4.37")	
	Weight	4.5 kg (9.9 lb)	
	Installation	Desktop / Wall mount	
BSP	Jetpack	Above 5.0	
Certifications		UL/CB/CE/FCC/BSMI/CCC (No RED certification)	

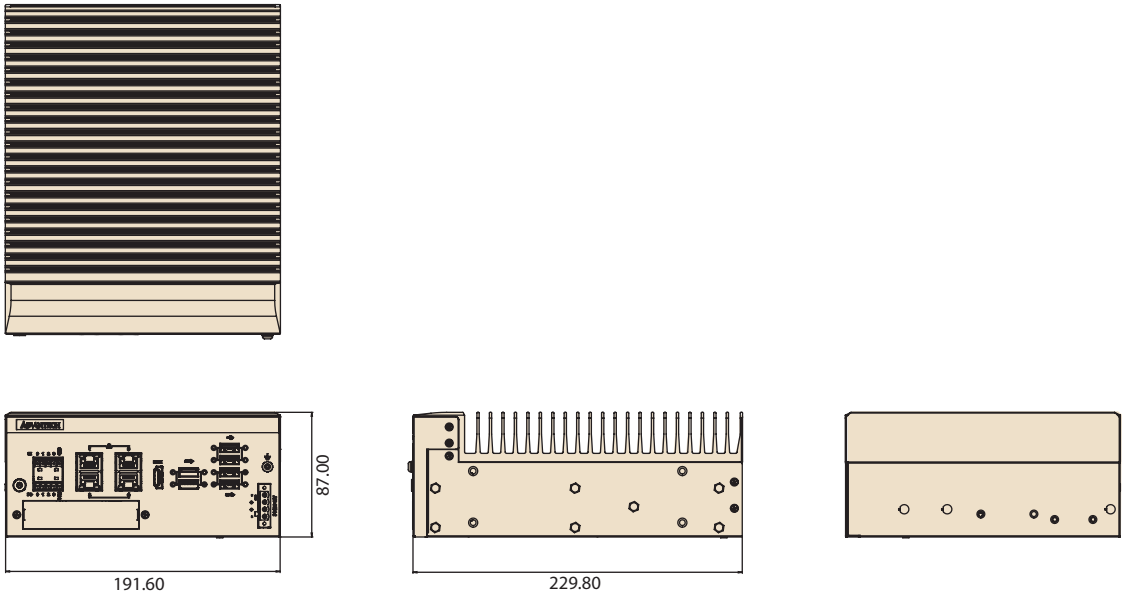
*Depending on the installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see the user documentation.

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Last updated: 22-Aug-2024

Dimensions

Unit: mm



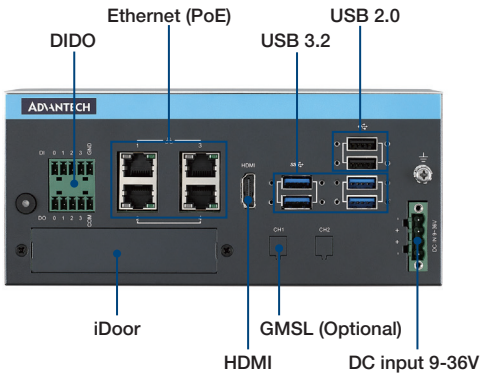
Ordering Information

Part Number	NVIDIA Module	Memory	eMMC
MIC-733-AO5A1	AGX Orin	32 GB	64 GB
MIC-733-AO6A1	AGX Orin	64 GB	64 GB

Packing List

Part Number	Description	Quantity
MIC-733-AO	AI Inference System	1
1652003234	Power terminal block 4P	1
1652005204	DI/DO terminal block 5P	2
1700023619-01	Micro USB cable for system recovery	1
1960070543T007	Mounting bracket	2
1960107065N000	M.2 mPCIe heat spreader bracket	1

Front View



Optional

Part Number	Description
96PSA-A230W24P4-3	Adaptor A/D, 100-240V, 230W, 24V
96PSA-A150W19P4-4	Adaptor A/D, 100-240V, 150W, 19V
1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
1700029019-01	Power Cord (PSE/BSMI), 3-pin, 7A, 125V, 1.8 M, DAC-ST01
1702002605	Power Cord (EU) 2-pin, 10/16A, 220V, 1.83 M, 90 D
1960065854N021	PCM series module bracket for supporting idoor cover fixing
MIC-75M10-00A2	iModule (1 x PCIe x8)
98RV710AL00	Allxon OOB module
98917330010	Add-on 4 ports PoE Module
PCA-TPMSPI-00A1	TPM 2.0 Module by SPI interface
968DD00294	2-ch GMSL SW video card
1700019968	F Cable 2x10P-2.0/D-SUB 9P(M)x2 15CM for On-board serial ports pin header extension
1960068789T008	IDOOR COMX2 Cover for On-board serial ports pin header extension

For the PCM module application, please use the iDoor cover on the MIC-733 front window.

Remote Management Enrollment

Enroll in 24/7 secure service to get all the features of remote device management on one centralized cloud portal - Allxon Portal.

*Supports JetPack 4.4 GA and above

Enrollment Page: https://allxon.com/jetson/device_enroll/