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-AO5A1	MIC-733-AO6A1
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)	

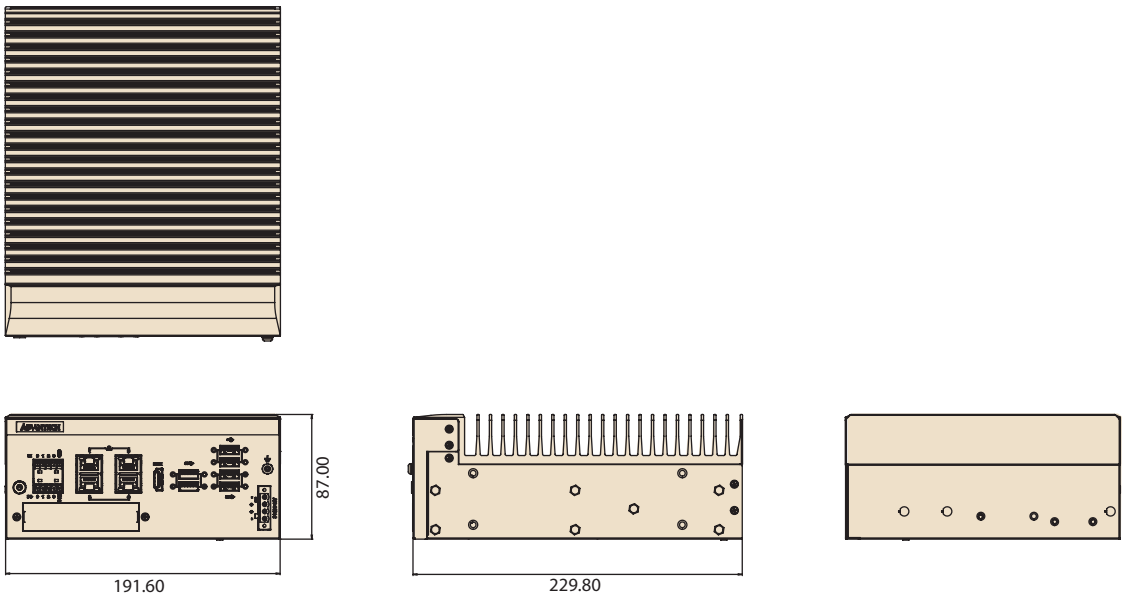
*Depending on the installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see the user documentation.

All product specifications are subject to change without notice.

Last updated: 28-Oct-2026

Dimensions

Unit: mm



Ordering Information

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

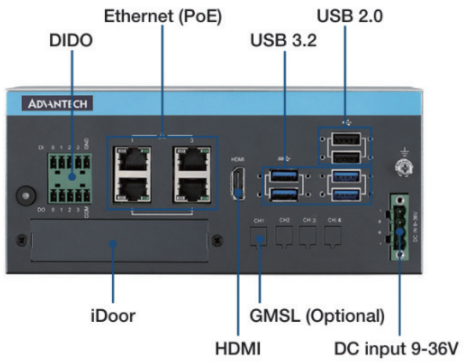
Packing List

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
1960070543T00A	Mounting bracket	2
1960107065N000	M.2 mPCIe heat spreader bracket	1

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/

Front View



Optional

	Part Number	Description	Quantity
SSD	96FD80-P1TB-TS1	SSSTC M.2 2280 1TB NVME G4x4 SSD -25°C ~85°C	1
	SQF-C8MV4-1TDEDC	SQF M.2 2280 720-D 1T 3D TLC BiCS5 (0~70°C)	1
	SQF-C8MV4-1TDEFM	SQF M.2 2280 730-D 1T 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MZ2-128GDEDE	SQF M.2 2280 720-D 128G 3D sTLC BiCS5 (-40~85°C)	1
	SQF-C8MV2-512GDEDE	SQF M.2 2280 720-D 512G 3D TLC BiCS5 (-40~85°C)	1
	SQF-C8MV2-512GDEFE	SQF M.2 2280 730-D 512G 3D TLC BiCS5 (-40~85°C)	1
	SQF-C8MV2-512GDEFN	SQF M.2 2280 730-D 512G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV4-2TDEDC	SQF M.2 2280 720-D 2T 3D TLC BiCS5 (0~70°C)	1
	SQF-C8MV2-128GDEDM	SQF M.2 2280 720-D 128G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV2-512GDEDM	SQF M.2 2280 720-D 512G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8BV4-1TDEDC	SQF M.2 2280 720-D 1T 3D TLC BiCS5 (0~70°C)	1
Wifi	EWM-W173H01E	Wi-Fi 6+BT 5.0 Module 2.4/5GHz Mini PCIe	1
	EWM-W172H01E	Wi-Fi 5+BT 4.2 Module 2.4/5GHz Mini PCIe	1
	1751000626-01	Cable Ant. SMA/F-R MHF1/113 BLK L250mm	2
	1751000460-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54	2
	9656EWMG00E	Half-size miniPCIe to miniPCIe bracket set	1
	1960081193N002	IDOOR ANTX2 Cover for MIC-733AO Powder 432C (Support 2 additional Wifi antennas)	1
5G	AIW-356-DQ	5G Sub6+GNSS M.2 3052 Key B (by region)	1
	1751000623-01	Cable Ant. SMA/F MHF4L/113 BLK L300mm (5G)	4
	1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 (5G)	4
Power Cord	1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D	1
	1700029019-01	Power Cord (PSE/BSMI), 3-pin, 7A, 125V, 1.8 M, DAC-ST01	1
	1702002605	Power Cord EU 3P 10A 250V C13 183cm (EU)	1
Power Adapter	96PSA-A230W24P4-3	Adaptor A/D, 100-240V, 230W, 24V (For MIC-733-AO6A1)	1
	96PSA-A150W19P4-4	Adaptor A/D, 100-240V, 150W, 19V (For MIC-733-AO5A1)	1
DIN Rail kit	98R17500201	MIC Din Rail Mounting kit	1
PCIE Extension	MIC-75M10-00A2	iModule (1 x PCIe x8)	1
OOB Extension	98RV710AL00	Allxon OOB module	1
PoE Extension	98917330010	Add-on 4 ports PoE Module	1
GMSL Extension	MIC-FG-4G2C2	4CH GMSL2 frame grabber with FAKRA	1
Serial Port Extension	1700019968	F Cable 2x10P-2.0/D-SUB 9P(M)x2 15CM for On-board serial ports pin header extension	1
	1960068789T008	IDOOR COMX2 Cover for On-board serial ports pin header extension	1
iDoor Accessory	1960065854N021	PCM series module bracket for supporting idoor cover fixing	1
TPM 2.0	PCA-TPMSPI-00A1	TPM 2.0 Module by SPI interface	1

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