

MIC-733-A0

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 Allxon 24/7 remote monitoring and OTA deployment; Azure Certified Devices

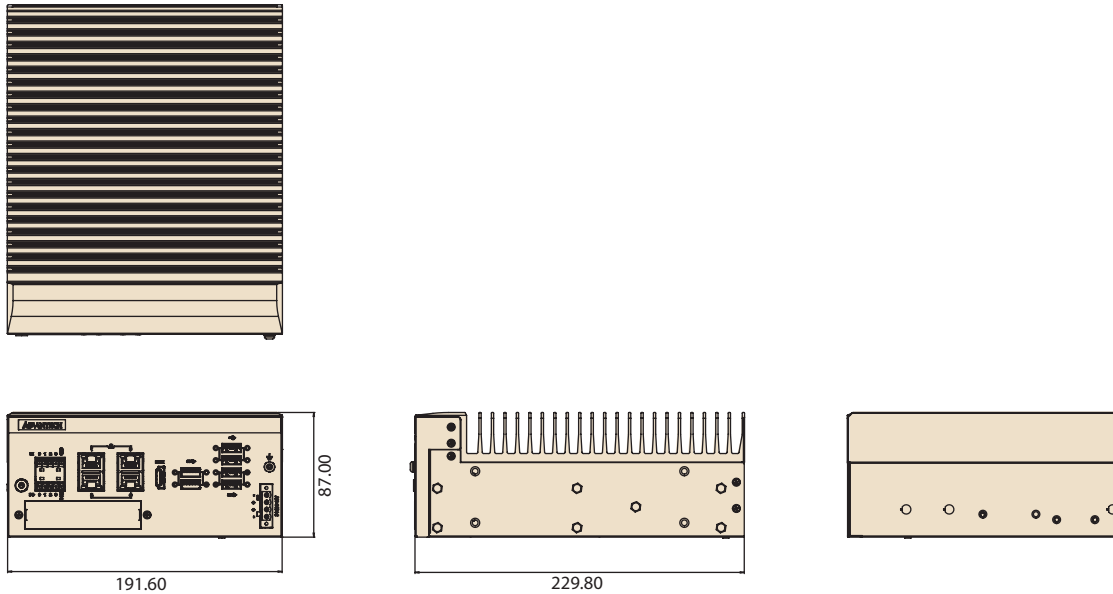
Specifications

		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.

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	NVMe
MIC-733-A05A1	AGX Orin	32 GB	64 GB	N/A
MIC-733-A06A1	AGX Orin	64 GB	64 GB	N/A

Packing List

Part Number	Description	Quantity
MIC-733-A0	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

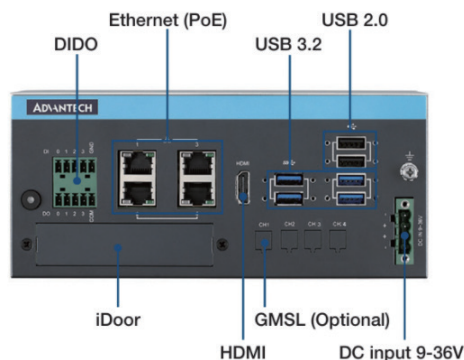
Remote Management Enrollment

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-C8M22-128GDEDE	SQF M.2 2280 720-D 128G 3D TLC 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
Wifi	SQF-C8BV4-1TDEDC	SQF M.2 2280 720-D 1T 3D TLC BiCS5 (0-70°C)	1
	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
5G	1751000626-01	Cable Ant. SMA/F-R MHF1/113 BLK L250mm	2
	1751000640-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54	2
	9656EWMG00E	Half-size miniPCIe to miniPCIe bracket set	1
Power Cord	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 Adapter	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
DIN Rail kit	96PSA-A230W24P4-3	Adaptor A/D, 100-240V, 230W, 24V (For MIC-733-A06A1)	1
	96PSA-A150W19P4-4	Adaptor A/D, 100-240V, 150W, 19V (For MIC-733-A05A1)	1
PCIE Extension	98R17500201	MIC Din Rail Mounting kit	1
OOB Extension	MIC-75M10-00A2	iModule (1 x PCIe x8)	1
PoE Extension	98RV710AL00	Allxon OOB module	1
GMSL Extension	98917330010	Add-on 4 ports PoE Module	1
Serial Port Extension	MIC-FG-4G2C1	4CH GMSL2 frame grabber with FAKRA	1
	1700019968	F Cable 2x10P-2.0/D-SUB 9P(M)x2 15CM for On-board serial ports pin header extension	1
iDoor Accessory	1960068789T008	IDOOOR COMX2 Cover for On-board serial ports pin header extension	1
TPM 2.0	1960065854N021	PCM series module bracket for supporting idoor cover fixing	1
	PCA-TPMSP1-00A1	TPM 2.0 Module by SPI interface	1

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