MIC-715-0X

Ruggedized In-Vehicle AI Fanless System Based on NVIDIA® Jetson Orin™ NX



Features

- Ruggedized IP67 waterproof fanless design
- Embedded with NVIDIA® Jetson Orin™ NX up to 100 TOPS
- 2 x GbE and 4 x PoE with IEEE 802.3af compliance
- 2 x USB 3.0, 2 x CAN bus, 1 x HDMI
- Supports 2 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports AIIxon 24/7 remote monitoring and OTA deployment
- e-mark compliance

Specifications

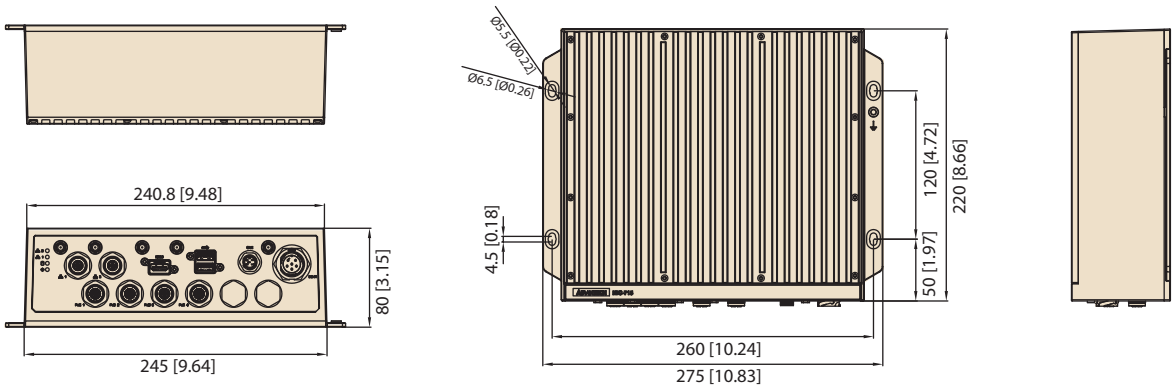
		NVIDIA® Jetson Orin™ NX
Processor System	CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU
	GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
	Memory	16GB LPDDR5
	Flash	-
I/O	Ethernet	6 x 10/100/1000 Mbps (4 x PoE support, IEEE 802.3af) in M12 X-coded, 8-pin female connector
	Display	HDMI (Max. resolution 3840 x 2160 @ 60Hz)
	USB	External: 2 x USB 3.0
	CAN Bus	2 x CAN bus
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	2 x mPCIe (signal: PCIe + USB)
	SIM	2 x Nano SIM slot (M.2 3052 & Mini PCIe2 slot)
	M.2	1 x M.2 3052 (B-Key, signal: PCIe + USB)
Storage	M.2	1 x M.2 2280 M-Key (NVMe, PCIe x1)
Power	Mode	M16, 6-pin male
	Input power	12/24V_{DC} (12-6A) with ignition *Note1
Environment	Operating Temperature	-20 ~ 60 °C with 0.7 m/s airflow (Max-N ARM mode)
	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)	275 x 220 x 80 mm (10.8" x 8.7" x 3.2")
	Weight	4.5 kg
	Installation	Desktop
BSP	Jetpack	Above 5.1
Certifications		CB/UL/CE/FCC/CCC (No RED certification)

Note1: Default setting is 12V DC in. If the power source is 24V, please open the case and adjust the SW1 DIP switch to 01 for 24V DC in.

All product specifications are subject to change without notice.

Dimensions

Unit: mm [inch]



Ordering Information

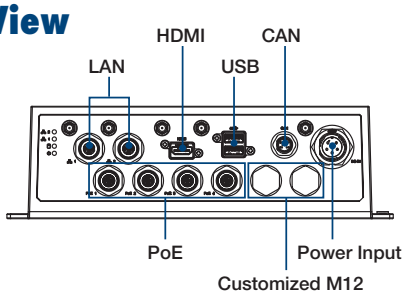
Part Number	NVIDIA Module	Memory	Installed Jetpack version	NVMe**	Super mode support
MIC-715-0X4A1	Orin NX	16GB	JP6.0	128GB pre installed	NO
MIC-715-0X4A2	Orin NX	16GB	NA	NA	NO

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

Packing List

Part Number	Description	Quantity
MIC-715-0X4A1	Ruggedized AI System based on Orin NX	1
1700023619-01	Micro USB Cable	1
1700032301-01	6-pin M12 power cable	1
1930005673-11	M2 Screws	2
1930008089	Mini PCIe Screws	2

Front View



Optional for Development/Testing Only

Part Number	Description
XSK320-LRS-150-12	Open Frame, A/D 100-240V 150W 12V

Remote Management Enrollment

Enroll in 24/7 secure service to get all the features of remote device management on one centralized cloud portal - the Allxon Portal
Enrollment Page: https://allxon.com/jetson/device_enroll/

Optional

Category	Part Number	Description	Quantity
Cable	1700025503-01	M Series Waterproof Cable 8P/RJ45-8P8C 100cm (M12 to RJ-45)	1
	1700022250-21	Type-A Waterproof Cable 5P(F) 200cm (CAN cable)	1
Thermal Kit	98R27150000	M2 3052 / Mini PCIe module thermal kit	1
Wifi	EWM-W173H01E	Wi-Fi 6+BT 5.0 Module 2.4/5GHz Mini PCIe	1
	1751000626-01	RF Cable SMA/F-R MHF1/113 BLK L250mm	2
	1751000460-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54 (Wi-Fi)	2
	9656EWMG00E	Half-size miniPCIe to miniPCIe bracket set	1
5G	AIW-356-DQ	5G Sub6+GNSS M.2 3052 Key B (by region)	1
	1751000624-01	Cable Ant. SMA/F MHF4L/113 BLK L250mm (5G)	4
	1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 (5G)	4
SSD	96FD80-P128-AH	APACER M.2 2280 NVME G4x4 128G -25°C ~ 85 °C	1
	96FD80-P256-AH	APACER M.2 2280 NVME G4x4 256G -25°C ~ 85 °C	1
	96FD80-P1TB-TS1	SSSTC M.2 2280 1TB NVME G4x4 SSD -25°C ~85°C	1
	SQF-C8MV2-128GDEDM	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 128G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV2-256GDEDM	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV2-512GDEDM	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV4-1TDEDM	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 1T 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV4-2TDEDM	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 2T 3D TLC BiCS5 (-20~85°C)	1
	SQF-C8MV2-128GDEDE	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 128G 3D TLC BiCS5 (-40~85°C)	1
	SQF-C8MV2-256GDEDE	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 256G 3D TLC BiCS5 (-40~85°C)	1
	SQF-C8MV2-512GDEDE	SQF PCIe/NVMe Gen.3 M.2 2280 OPAL 720-D 512G 3D TLC BiCS5 (-40~85°C)	1