

MIC-732-A0

AI Inference System Based on NVIDIA Isaac Nova Orin



Features

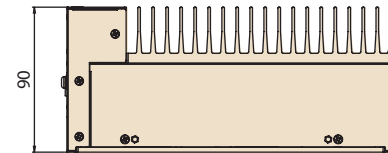
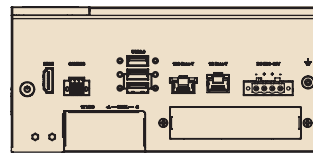
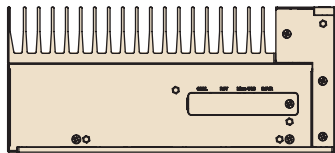
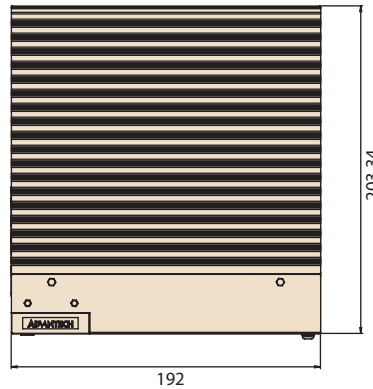
- Fanless and ultra-compact design
- Embedded with NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- Supports 1 x 10GbE, 1 x 2.5GbE, 3 x USB 3.2 Gen 2 (10 Gbit/s)
- Supports 2 x CANbus, 1 x mPCIe, 2 x Nano SIM slots
- Support Total 8-ch GMSL3.0/2.0 with FAKRA connectors
- Support NVIDIA Isaac Robot Operating System (ROS2)

Specifications

		NVIDIA
		MIC-732-A06A1
Processor	CPU	12-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 3MB L2 + 6MB L3
	GPU	2048-core NVIDIA Ampere GPU with 64 Tensor Cores Maximum Operating Frequency: 1.3GH
	Mem	64GB LPDDR5
	eMMC	64GB eMMC
I/O	Ethernet	1 x 10/100/1000/2500 Mbps 1 x 10GbE
	Display	1 x HDMI Display
	USB	External: 3 x USB 3.2 Gen 2, 2 x USB micro B, (1 from UART for debug) Internal: 1 x USB 2.0 (pin header)
	CAN	2 x CANBus
	Serial Ports	2 x RS-232/422/485 (On-board pin header)
Expansion	M.2	1 x M.2 3052 (B-Key) (Signal: USB 3.0+USB 2.0) 1 x M.2 2230 (E-Key) (Signal: PCIe+USB2.0)
	Mini PCIe	1 x mPCIe (Signal: PCIe+USB 2.0)
	SIM	2 x Nano SIM slots
	GMSL(Optional)	8-ch GMSL3.0/2.0 with FAKRA connectors
	iDoor (Optional)	1 x iDoor bracket reserve
Storage	M.2	1 x M.2 2280 (B/M-Key, NVMe, Signal: PCIe x4)
Power	Mode	AT/ATX (Default AT)
	Input Voltage	9~36V _{DC} , Rated 12V _{DC}
Environment	Operation Temperature	-20 ~ 60 °C with 0.7 m/s air flow
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	10G / 11 ms
Button		Reset / Recovery
Mechanical	Dimension (W x H x D)	192 x 203 x 90 mm (with heat sink)
	Weight	3kg
	Installation	Desktop / Wall mount
BSP	Jetpack	Above 6.0
Certifications		CE/ FCC/ BSMI/ KCC/ CCC

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC
MIC-732-A06A1	AGX Orin	64 GB	64 GB

Packing List

Part Number	Description	Quantity
MIC-732-A0	AI Inference System	1
1652003234	Power terminal block 4P	1
1652006794-02	CanBus Plug-In Block 2x3P	1
1700023619-01	Micro USB cable for system recovery	1

Optional

Category	Part number	Description	Quantity
Power Adapter	96PSA-A150W19P4-4	Adaptor A/D, 100-240V, 150W, 19V	1
	1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M,	1
Power Cord	1700029019-01	Power Cord (PSE/BSMI), 3-pin, 7A, 125V, 1.8 M, DAC-ST01	1
	1702002605	Power Cord (EU) 2-pin, 10/16A, 220V, 1.83 M, 90 D	1
	MIC-FG-8G2C1	8-port GMSL video capture card	1
GMSL2 frame grabber	1751000758-01	RF Cable MINI FAKRA B-Z/F FAKRA-Z/M 1x4 BLK L300	1 to 4 cameras
	1751000805-01	Cable Ant. FAKRA-Z/F FAKRA-Z/F KS302 BLK L15M	1 (by camera quantity)
	1700036237-01	A Cable 1x4P-2.0/1x4P-2.54x2 50CM	1
iDoor Module (DI/O)	PCM-27D24DI-AE	Digital I/O, 16 DI / 8 DO, Isolation, DB37 x 1	1
	1960065854N001	iDoor bracket	1
iDoor Module (LAN)	PCM-24R2GL-AE	2 Port Giga LAN Intel i350 PCIe mini card	1
	1960065854N001	iDoor bracket	1
SSD	TBU	Heatsink block for PCM-24R2GL-AE	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
WIFI	EWM-W173H01E	Wi-Fi 6+BT 5.0 Module 2.4/5GHz Mini PCIe	1
	1751000620-01	RF Cable SMA/F-R MHF4L/113 BLK L300mm	2
5G	1751000460-01	Wifi antenna// Dipole Ant. Wifi 6E SMA/M-R BLK L111.7mm IP54	2
	AIW-356	5G Sub6+GNSS M.2 3052 Key B, (USB only)	1
	1751000620-01	RF Cable SMA/F-R MHF4L/113 BLK L300mm	4
	1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 (5G)	4
4G	968AD00589 (US)	4G LTE CAT4+GNSS Mini PCIe Full size WW	1
	96PD-EC25EFA (EU)	4G LTE+GNSS Mini PCIe 5130 EU,TW,IN,KR,SEA	1
	96PD-EG255GG (Global)	4G LTE+GNSS Mini PCIe 5130 Global	1
	1751000620-01	RF Cable SMA/F-R MHF4L/113 BLK L300mm	2
	1750008303-01	LTE antenna// Antenna AN0727-64SP6BSM	2