MIC-735

AI Inference System Powered by NVIDIA IGX Thor™

Features

- Embedded with NVIDIA IGX™ T5000 up to 2,070 FP4 TFLOPS
- Supports SFP 4 x 25G and 1 x 5G Ethernet
- Supports Functional Safety MCU
- Wide operating temperature -30°C to +60°C with ruggedized design
- Support Holoscan Sensor Bridge ready for robotics application

Specifications

		NVIDIA IGX T5000
Processor	CPU	14-core Arm® Neoverse®-V3AE 64-bit CPU
	GPU	2,560-core NVIDIA Blackwell architecture GPU with fifth generation Tensor Cores
	Memory	128 GB 256-bit LPDDR5X
I/O	Ethernet	1 x 5G Mbps, 4 x 25 G (SFP28)
	Display	Display Port Out x1 / HDMI Port x1
	USB	2 x USB 3.0 Type A, 1 x Micro USB for Debug UART
	OTG USB	1 x USB 2.0 Micro USB (Flash)
	Button	1 x Reset button, 1 x Recovery button
	CANBUS	1 x CANBUS (header)
	Audio	1 x 3.5mm Line In 1×3.5mm Line Out (header)
	GMSL (Optional)	8-ch GMSL 2.0 with FAKRA connectors (With standard MIPI form factor)
	Mini PCIe	1 x mPCIe SloT (Signal: PCIe+USB 2.0)
	iDoor (Optional)	1 x iDoor bracket reserve
	M.2	1 x M.2 3052 (B-Key) (Signal USB 3.0 +USB 2.0) Slot
	M.2	1 x M.2 2230 (E-Key) (Signal: PCIe+USB2.0)
Storage	M.2	1 x M.2 2242 (M-Key, NVMe, Signal: PCIe x2) 1 x M.2 (M Key, Signal : PCIe) Onboard UFS to support Safety MCU application
Power	Mode	AT/ATX (Default AT)
	Input Voltage	19~36 V_{DC}, total 200 W, including the I/O
Environment	Operating Temperature	-30°C to + 60°C with 0.7 m/s airflow
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	10G / 11 ms
Safety	Safety MCU module	1 x SMCU module with Renesas SMCU RH850/U2A16 (board to board connector)
Extension	Sensor integration	Mulitiple Holoscan Sensor Bridge (Camera over Ethernet) Connect to Holoscan Sensor switch (EKI-2712X-SPE)
Mechanical	Dimensions (W x D x H)	System: 212 x 216 x 95 mm
	Weight	2.4 kg
	Installation	Desktop / Wall mount
BSP	IGX OS 2.0	iGPU mode IGX BaseOS
Certifications		CE/FCC Class A /UKCA / CCC (No RED certification)

Dimension

Unit: mm

Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	NVMe
MIC-735-IT7A1	NVIDIA IGX T5000	128 GB	NA	1TB Pre-installed
MIC-735-IT7A2	NVIDIA IGX T5000	128 GB	NA	NA

Packing List

Part Number	Description	Quantity
MIC-735	AI Inference System MIC-735-IT7A1 (with pre-build NVMe) MIC-735-IT7A2 (without pre-build NVMe)	1
1700023619-01	Micro USB cable for system recovery	2

Optional

Part Number	Description
SQF-C4MV4-2TDEDE	SQF M.2 2242 720-D 2T 3D TLC BiCS5 (-40~85°C)
96FD42-P1TB-TS	SSSTC M.2 2242 1TB NVME G4 DRAMLESS SSD TLC (0°C ~70°C)
SQF-C4MV4-1TDEDE	SQF M.2 2242 720-D 1T 3D TLC BICS5 (-40~85°C)
MIC-FG-8G2C1	8CH GMSL2 frame grabber with mini FAKRA
1751000758-01	RF Cable MINI FAKRA B-Z/F FAKRA-Z/M 1x4 BLK L300
1751000805-01	Cable Ant. FAKRA-Z/F FAKRA-Z/F KS302 BLK L15M
EWM-W179M201E	Wi-Fi 6 + BT Module M.2 Key A/E
1751000620-01	Cable Ant. SMA/F-R MHF4L/113 BLK L300mm (Wi-Fi)
1751000460-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54 (Wi-Fi)
AIW-356-DQ	5G Sub6+GNSS M.2 3052 Key B (by region)
1751000623-01	Cable Ant. SMA/F MHF4L/113 BLK L300mm (5G)
1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 (5G)
XMIC-FSP230-AAAN3	ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 2P
1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M
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
96PSA-A84W12V1-4	A/D 100-240V 84W 12V C14 DC JACK 62368 (External power supply for GMSL)
1700026907-01	Cable 1x4P-2.0/1x4P-2.0 10CM (Int power cable GMSL)