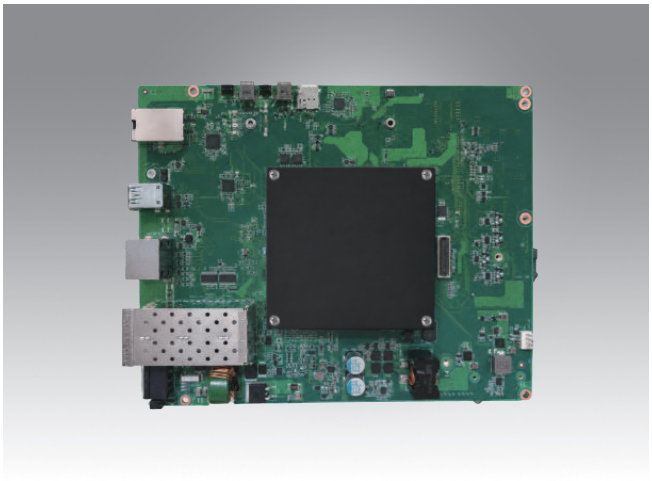
MIB-735-IT

AI Inference Board kit Powered by NVIDIA® IGX Thor™



Features

- Embedded with NVIDIA IGX™ T5000 up to 2,070 FP4 TFLOPS
- Supports 4 x SFP28 (4 x 10 GbE)
- Supports 1 x 5GbE, 2 x USB 3.2 Gen 2, 1 x M.2 Ekey (WiFi), 1 x M.2 B key (LTE./ 5G)
- Supports 1 x Safety MCU (Optional)
- Support Total 8-ch GMSL2.0 with mini FAKRA connectors

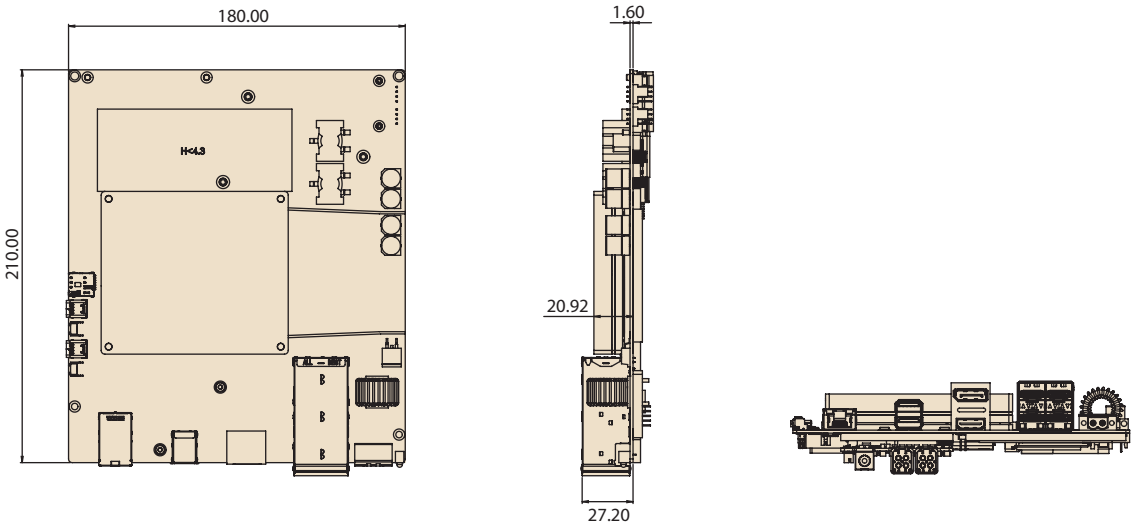
Specifications

Processor		NVIDIA® IGX T5000™
	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
Ethernet	RJ45	1 x 10/100/1000/2500/5000 Mbps Ethernet
	SFP28	4 x 10 GbE
I/O	Display	1 x Display Port (Max. resolution 3840x2160 @ 60Hz) 1 x HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	2 x USB 3.2 Gen 2 (Type A)
	Flash USB	1 x USB 2.0 (Type C)
	Console	1 x USB 2.0 (Type C) console for debug (UART to USB)
	CANBUS	1 x CANBUS (header)
	GMSL (Optional)	4 x MIPI 4 lanes (Support 8-ch GMSL2.0 with mini FAKRA connectors)
	SIM card	1 x Nano SIM on side of board
Extension	M.2 E Key	1 x M.2 2230 Slot (E-Key) (Signal: PCIe x1 + USB2.0)
	M.2 B Key	1 x M.2 3052 Slot (B-Key) (Signal USB 3.0 +USB 2.0)
	Mini PCIe	1 x mPCIe Slot (Signal: PCIe + USB 2.0)
Storage	M.2 M Key	1 x 2242 M-key NVMe (PCIex4) (pre-installed 512GB SSD on A1 SKU) 1 x Onboard UFS to support Safety MCU application
Power	Mode	AT
	Input Voltage	19~36 VDC
	Internal pin header	3 x SMART FAN
Environment	Operating Temperature	-30°C to + 65°C with 0.7 m/s airflow (assumption with SOM Cooler)
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	10G / 11 ms
Safety	Safety MCU module (Optional)	1 x SMCU module with Renesas SMCU RH850/U2A16 (board to board connector), default shipping without Safety MCU module
Mechanical	Dimensions (W x D x H)	Carrier Board+IGXT5000 SOM 210 x 180 x 27.2 mm (without the Heatsink)
	Weight	Carrier Board+IGXT5000 SOM without the Heatsink: 0.465 kg Carrier Board+IGXT5000 SOM with the Heatsink 1.0 kg (Shipping WIth IGX T5000 cooler Heatsink)
	Installation	Wall mount
BSP	IGX OS	IGX OS 2.0 (iGPU mode)
Certifications		CE/FCC Class A /UKCA (No RED certification)

All product specifications are subject to change without notice.

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	NVMe	Installed BSP version
MIB-735-IT7A1	NVIDIA® IGX T5000™	128 GB	NA	512 GB Pre-installed	IGX OS 2.0 (iGPU mode)
MIB-735-IT7A2	NVIDIA® IGX T5000™	128 GB	NA	NA	IGX OS 2.0 (iGPU mode)

Packing List

Part Number	Description	Quantity
MIB-735-IT	AI Inference Board Kit	1
1700030739-01	M cable USB-A 9P(M)/USB-C 24P(M) 30cm	1
1652002202	Plug-in Block 2P for power	1
SQF-C4MV2-512GDEDE	SQF M.2 2242 720-D 512G 3D TLC BiCS5 (-40~85°C)	1

Part Number	Description	Quantity
1990040296N010	Thermal pad for 5G Module	1
1990033689N000	Thermal pad for Wifi Module	1
1990011336N000	Thermal pad for NVMe	1
1970005628T011	IGX T5000 Cooler Heatsink Module	1
1930005673-11	Screws for 5G/ WIFI Module	2

Optional

	Part Number	Description	Quantity
SSD	SQF-C4MV2-512GDEDE	SQF PCIe/NVMe Gen.3 M.2 2242 OPAL 720-D 512G 3D TLC BiCS5 (-40~85°C)	1
	SQF-C4MV4-1TDEDE	SQF PCIe/NVMe Gen.3 M.2 2242 OPAL 720-D 1T 3D TLC BiCS5 (-40~85°C)	1
	96FD42-P1TB-TS	SSSTC M.2 2242 1TB NVME G4 DRAMLESS SSD TLC (0°C ~70°C)	1
	SQF-C4MV4-2TDEDE	SQF M.2 2242 720-D 2T 3D TLC BiCS5 (-40~85°C)	1
GMSL2 frame grabber	MIC-FG-8G2C1	8CH GMSL2 frame grabber with mini FAKRA	1
	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)
	1700026907-01	Cable 1x4P-2.0/1x4P-2.0 10CM (Internal power cable for GMSL)	1
	96PSA-A84W12V1-4	A/D 100-240V 84W 12V C14 DC JACK 62368 (External power supply for GMSL)	1
Wifi	EWM-W179M201E	Wi-Fi 6 + BT Module M.2 Key A/E	1
	1751000620-01	Cable Ant. SMA/F-R MHF4L/113 BLK L300mm (Wi-Fi)	2
	1751000460-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54 (Wi-Fi)	2
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 adapter	XMIC-FSP230-AAAN3	ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 2P	1
Power Cord	1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M	1
	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
Safety Module	98920735D10	Safety MCU Module	1