AFE-A702

AMR Control System Powered by NVIDIA® Jetson Thor™

Preliminary

Features

- Powered by NVIDIA Jetson T5000™ and Jetson T4000™, delivering up to 2070 TFLOPS FP4 inference performance
- Dedicated I/Os for Robotics: 6xGbE,4xUSB, 2xCOM, DIO, CANFD
- Supports SFP28 1x 10GbE
- Sensor connection for camera, LiDAR, IMU...etc.
- Supports NVIDIA JetPack™ 7.0
- IEC 61000-6-4 Heavy Industry Certificate
- Supports Advantech Robotic Suite

Specifications

Processor System	NVIDIA Jetson Thor Module	NVIDIA Jetson T5000	NVIDIA Jetson T4000
	CPU	14-core Arm® Neoverse®-V3AE 64-bit CPU	12-core Arm® Neoverse®-V3AE 64-bit CPU
	GPU	2560-core NVIDIA Blackwell architecture GPU with 96 fifth-gen Tensor Cores	1536-core NVIDIA Blackwell architecture GPU with 64 fifth-gen Tensor Cores
	AI Performance Reference	2070 TFLOPS (FP4—Sparse)	1200 TFLOPS (FP4—Sparse)
	TDP	40-130W	40–70 W
	Memory	128GB LPDDR5X, 273 GB/s	64 GB 256-bit LPDDR5X, 273 GB/s
Ethernet	Interface	RJ-45	
	Controller	Intel® i226	
	Speed	6 x 2.5GbE	
SFP28	Speed	1 x 10GbE	
Display	HDMI	1 x HDMI 2.0 (Max. resolution 3840 x 2160 @ 24Hz)	
IO Ports	USB	6 x USB 3.2 Type A	
	OTG USB	1 x Type C USB (for system recovery only)	
	CANBus	2 x isolated CANFD	-
	DI/DO	16bit isolated DIO	
	COM	2 x RS232/422/485	
	Remote switch	LED/WDT/PWS/GND/RESET/Debug	
Expansion	M.2 E key	1 x 2230	
	M.2 B key	1 x 2280/3042/3052 (PCIex1, USB, SIM)	
	GMSL	8 x FAKRA (Optional)	
	IMU	BOSCH BMI088 6-axis (Optional)	
Others	TPM	TPM2.0	
	Time Sync	Supports GPS PPS signal (optional)	
Storage	M.2 M key	1 x M.2 2280	
Power	Power Supply voltage	20~28V	
	Power Type	ATX/AT mode, ATX default	
Environment	Operational Temperature	-10 ~ 55°C with 0.7 m/s air flow	
	Operating Humidity	95% @ 40 °C (non-condensing)	
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis	
Mechanical	Dimensions (W x D x H)	177 x 174 x 90 mm	
	Weight	TBD	
	Mounting Support	Wall mounting	
Operating System		Ubuntu 24.04 LTS with NVIDIA JetPack 7.0	
Software Support	ROS2	Ready by Advantech Robotic Suite	
Certifications	EMC/Safety	CE/FCC Class B, CB, UL, CCC and BSMI (No RED Certificate)	