

EDG6N0-S T5X MB (T5000/T4000)

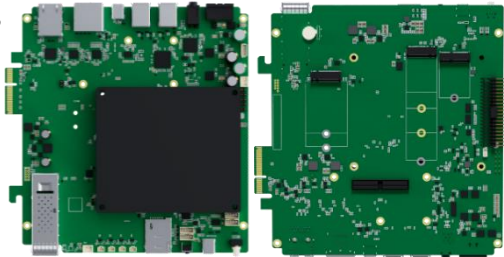
YUAN

Visualize Intelligent Planet

Highly Expandable AI Edge, up to 2070 FP4 TFLOPS w/ 1×HDMI2.0, 1×DP1.4

Features

- Powered by NVIDIA® Jetson Thor™(T5000/T4000), up to 2070/1200 FP4 TFLOPS
- 1×QSFP28
- 1×M.2 M Key / 1×M.2 E Key / 1×M.2 B Key
- 4×USB3.2 Gen2 Type-A, 2×USB3.2 Gen2 Type-C
- 1×HDMI2.0, 1×DP1.4
- UART / I2C / SPI, and CAN Bus (T5000 Only)



Specification

System		
SOM	NVIDIA Jetson Thor™ T5000	NVIDIA Jetson Thor™ T4000
CPU	NVIDIA Jetson Thor™ 128GB 14-Core ARM Neoverse V3AE 64-bit CPU	NVIDIA Jetson Thor™ 64GB 12-Core ARM Neoverse V3AE 64-bit CPU
GPU	2560 NVIDIA CUDA cores 96 5 th Tensor cores	1536 NVIDIA CUDA cores 64 5 th Tensor cores
AI Performance	Up to 2070 FP4 TFLOPS	Up to 1200 FP4 TFLOPS
System Memory	128GB LPDDR5X 273 GB/s	64GB LPDDR5X 273 GB/s
Interface		
Storage	Supports External NVMe	Supports External NVMe
Display Interface	1×HDMI2.0 (Up to 4K60), 1×DP1.4 (Up to 4K60)	1×HDMI2.0 (Up to 4K60), 1×DP1.4 (Up to 4K60)
Ethernet	1×QSFP28 for 100Gbps Ethernet 1×RJ45 for 5Gbps Ethernet DHCP Client	1×QSFP28 for 75Gbps Ethernet 1×RJ45 for 5Gbps Ethernet DHCP Client
Expansion Slot	PCIe 1×PCIe Gen5×4 (Gold Finger) M.2 1×M.2 2230 E Key PCIe Gen4*1/USB2.0/SDIO Slot 1×M.2 2280 M Key PCIe Gen5×2 Slot 1×M.2 2242/3042/3052 B Key USB3.2 Gen1 Slot	PCIe 1×PCIe Gen5×4 (Gold Finger) M.2 1×M.2 2230 E Key PCIe Gen4*1/USB2.0/SDIO Slot 1×M.2 2280 M Key PCIe Gen5×2 Slot 1×M.2 2242/3042/3052 B Key USB3.2 Gen1 Slot
USB	4×USB3.2 Gen2 (Type-A) 2×USB3.2 Gen2 (Type-C)	4×USB3.2 Gen2 (Type-A) 2×USB3.2 Gen2 (Type-C)
MIPI	16×MIPI CSI-2 Lanes (D-PHY 2.1, 4×4 3×4+2×2 2×4+4×2 1×4+5×2 6×2 MIPI Lanes, Support MIPI Camera, Capture Card)	16×MIPI CSI-2 Lanes (D-PHY 2.1, 4×4 3×4+2×2 2×4+4×2 1×4+5×2 6×2 MIPI Lanes, Support MIPI Camera, Capture Card)
Audio	1×Line In (3.5mm) 1×Line Out (3.5mm)	1×Line In (3.5mm) 1×Line Out (3.5mm)
Peripheral Communication	40Pin Header 1×UART (Pin Header) 2×GPIO (Pin Header) 2×CAN Bus (Pin Header or Wafer) 2×I2C (Pin Header) 1×I2S (Pin Header) 1×SPI (Pin Header) 3×PWM (Pin Header) 4×Fan Connector 4×CAN Bus (Wafer, Two of them share pins with the CAN BUS on the 40-pin header.)	40Pin Header 1×UART (Pin Header) 2×GPIO (Pin Header) 2×I2C (Pin Header) 1×I2S (Pin Header) 1×SPI (Pin Header) 3×PWM (Pin Header) 4×Fan Connector
Misc. Features	Firmware Upgradable Auto Power (Pin Header)	Firmware Upgradable Auto Power (Pin Header)

Add-On Cards / SDK / Software

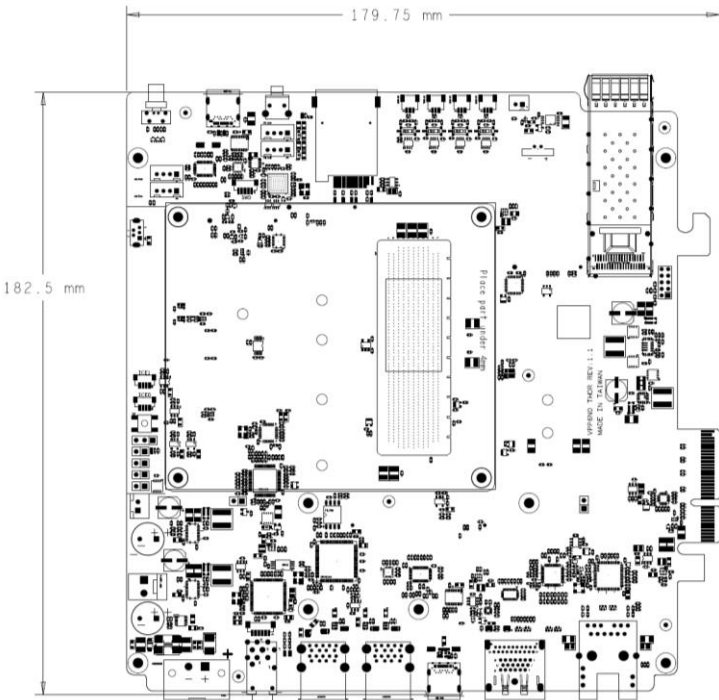
Video Feature		
Video Encode	NVIDIA Jetson Thor™ 128GB	NVIDIA Jetson Thor™ 64GB
	H.265 (UHP) · 6×4K60 12×4K30 26×1080p60 54×1080p30 H.264 (UHP) · 6×4K60 12×4K30 24×1080p60 48×1080p30	H.265 (UHP) · 3×4K60 6×4K30 13×1080p60 27×1080p30 H.264 (UHP) · 3×4K60 6×4K30 12×1080p60 24×1080p30
Video Decode	NVIDIA Jetson Thor™ 128GB	NVIDIA Jetson Thor™ 64GB
	AV1 (Main Profile) · 2×8K30 6×4K60 12×4K30 26×1080p60 54×1080p30 H.265 (Main, Main10) · 4×8K30 10×4K60 20×4K30 40×1080p60 82×1080p30 H.264 (Baseline, Main, High) · 4×8K30 10×4K60 22×4K30 42×1080p60 84×1080p30 VP9 (Profile 0, Profile 2) · 2×8K30 8×4K60 16×4K30 32×1080p60 64×1080p30	AV1 (Main Profile) · 1×8K30 3×4K60 6×4K30 13×1080p60 17×1080p30 H.265 (Main, Main10) · 2×8K30 5×4K60 10×4K30 20×1080p60 41×1080p30 H.264 (Baseline, Main, High) · 2×8K30 5×4K60 11×4K30 21×1080p60 42×1080p30 VP9 (Profile 0, Profile 2) · 1×8K30 4×4K60 8×4K30 16×1080p60 32×1080p30

Environment

Development Environment	
OS	Ubuntu: 24.04.2
Kernel	6.8.12-tegra or Higher
BSP	Linux for Tegra(L4T) R38.2.0 or Higher
SDK	JetPack 7.0.0 or Higher
Environment	
Power Supply	DC input : 20~57V
Power Consumption	TBA
Operating Temperature	Standard Version: -20 ` C ~45 ` C with Airflow
Storage Temperature	-25 ` C ~80 ` C
Certification	CE, FCC

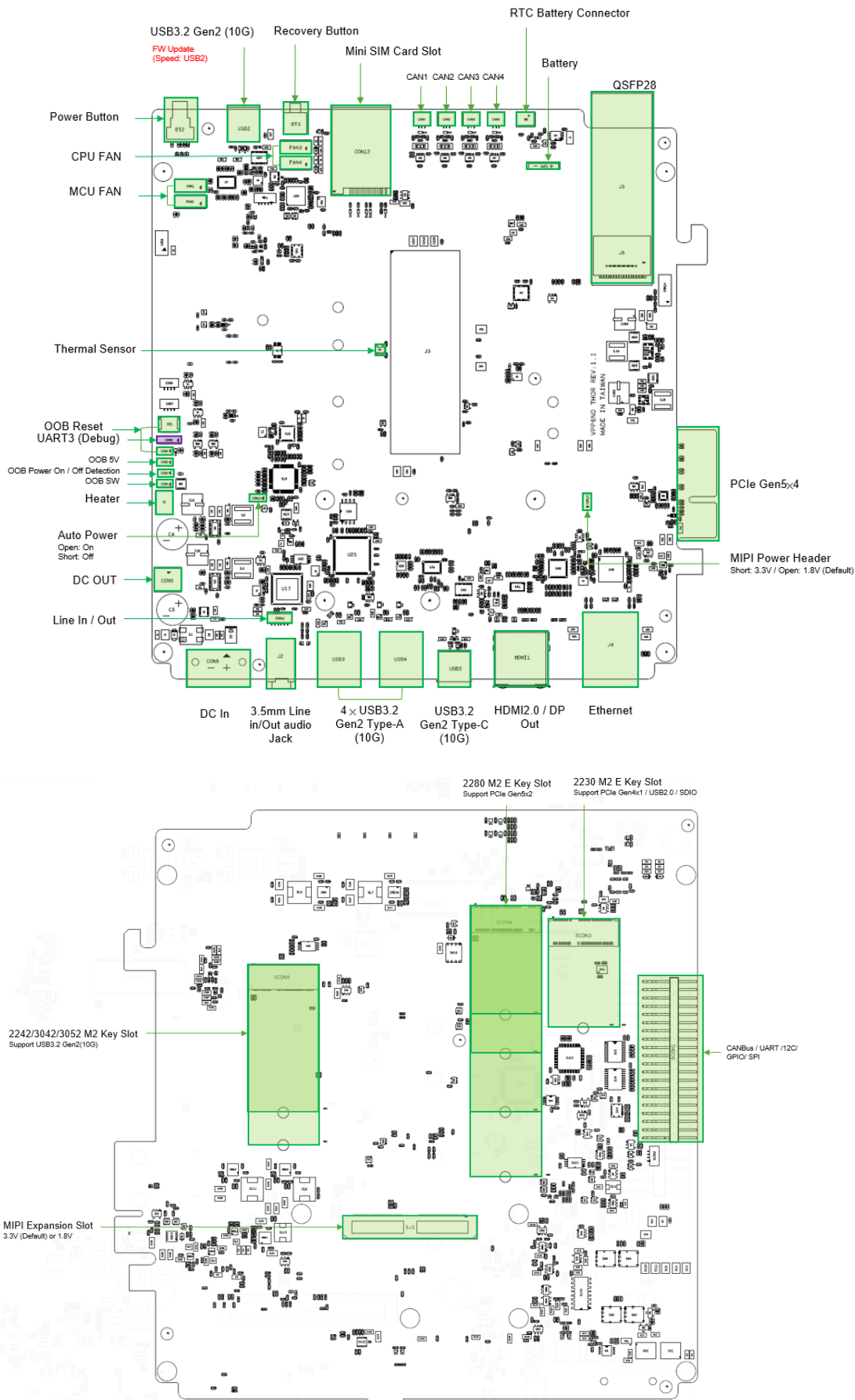
Mechanical

- Dimension of main Board: 179.75mm×181.5mm
- Weight: TBA

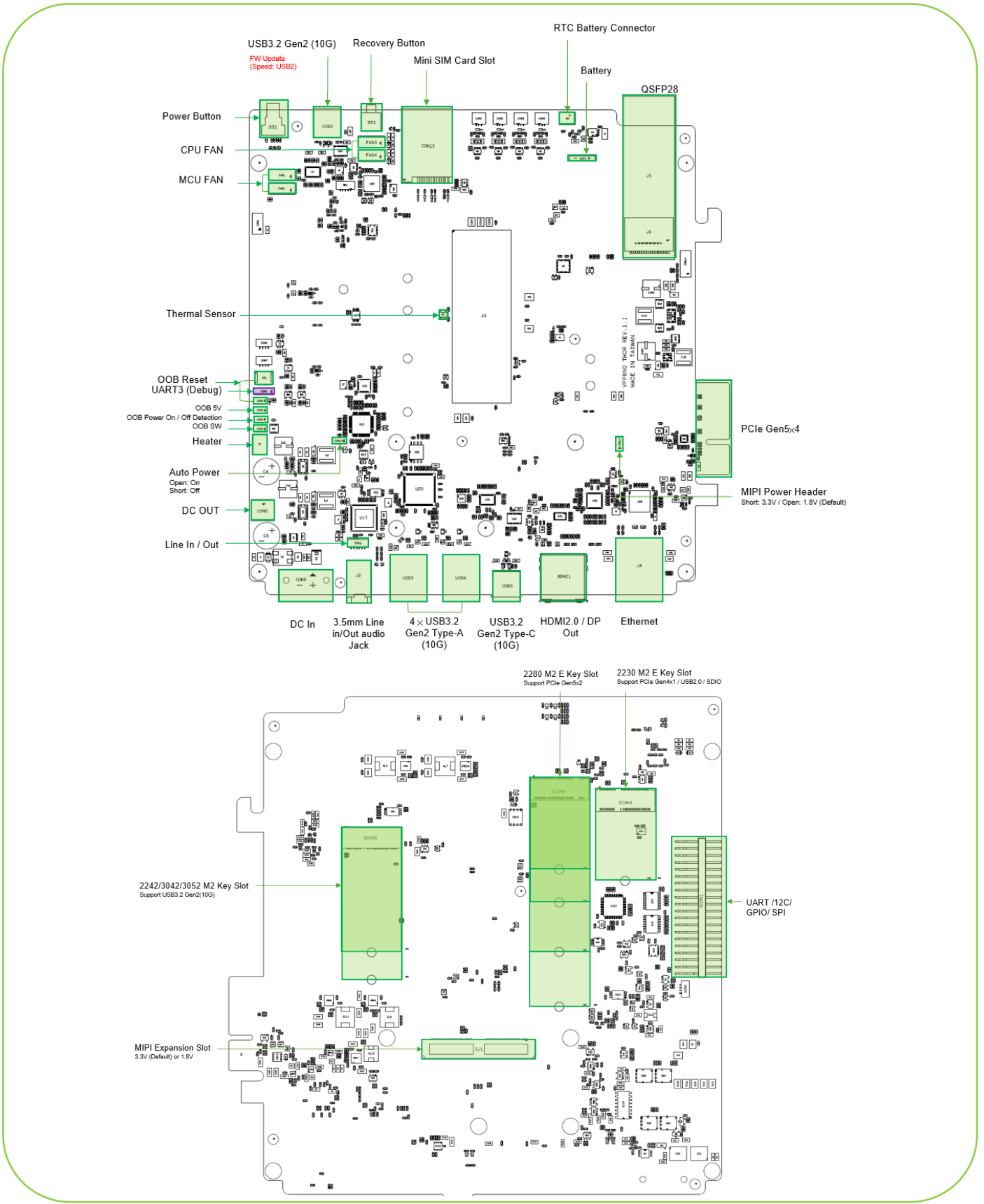


I/O Layout

Carrier Board (T5000)



Carrier Board (T4000)



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