THOR200-RS

1.5U/2 Military Robot Server with Intel 13th Raptor Lake

Features

- **MIL-STD 810 Thermal, shock, vibration, Humidity**
- **Intel® Raptor Lake-H i7-13800HRE Processors (up to 14 cores)**
- **Dual 10G Fiber Network (X510**
- **Nvidia MXM A4500 (5888 CUDA)**
- **Intel Arc™ A730M, 12GB GDDR6**
- **Up to 64GB DDR5 SO-DIMM**
- **SFF with Open module Architecture for easy upgrade**
- **COMe-T6 structure inside**
- **Extreme Temperature Support -40°C to 85°C**
- **9V~36V DC-IN**

Introduction

THOR200-RSH ROBOT SERVER INSIDE

Based on COM Express and MXM, SK515-T6RL features not only versatile, comprehensive applications in compute-intensive cases but also its scalability and flexibility for designers to build anything they want. Equipped with core, Intel® Core™ i7 13th Gen processor (Raptor Lake series), the most advanced GPU, NVIDIA® RTX A4500 and 2x 10GbE-by Intel's X710 Ethernet Controller,

SK515-T6RL brings powerful performance and meets different application requirements.

Furthermore, with operation temperature ranging from -40 to 85°C and dust& vibration endurance, SK515-T6RL can be deployed in harsh environments. That proves its suitability for military applications such as unmanned aircrafts & vessels and more cases like autonomous vehicles, fleet management, intelligent robots and so on.

Specifications

System

Processor	Intel® Core™ i7-13800HRE, 2.5/5.0 GHz, 24MB, 45W, 14C, 20T
Memory type	Up to 64GB DDR5 SO-DIMM
Graphic	Embedded NVIDIA® RTX™ A4500 /A2000 - Ampere Architecture - 5888/2560 CUDA® cores, 46/20 RT Cores, and 184/80Tensor Cores - 16GB/8GB GDDR6 memory, 256/128-bit Embedded Intel Arc™ A730M - A-series discrete GPU - 24 Xe-Cores -12GB GDDR6 menory 192-bit
TPM	Chipset: Infineon, Type: TPM 2.0
BIOS	AMI UEFI BIOS
USB	4x USB 3.0 + 2x USB2.0
Ethernet	2x 2.5GbE LAN Ports
	2x 10GbE SFP+ (Option)
Storage	1x M.2 2280 M-key SATA SSD, up to 2TB
COM Port	4x RS232/422/485 (function select by jumper)
GPIO	4x DI/DO(4 in / 4 out)
Power Type	9V ~ 36V DC-IN
Operating Temperature	-40°C to +85°C
Dimension	220mm(W) x 230mm(L) x 60.6mm(H)

Front I/O

LAN	2x 2.5GbE LAN T-Base
USB	2x USB 3.0
	2x USB2.0
Display	2x DP ports
Audio	1x Lin-out + 1x Mic-in
COM	1x RS232
Switch	Power Switch with Backlight

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LED	HDD/SSD indicator LED

Rear I/O

LAN	4x 1GbE LAN – TBase
COM	2x RS232/422/485
Power	4P terminal Block, 9V~36V DC-IN

Environmental

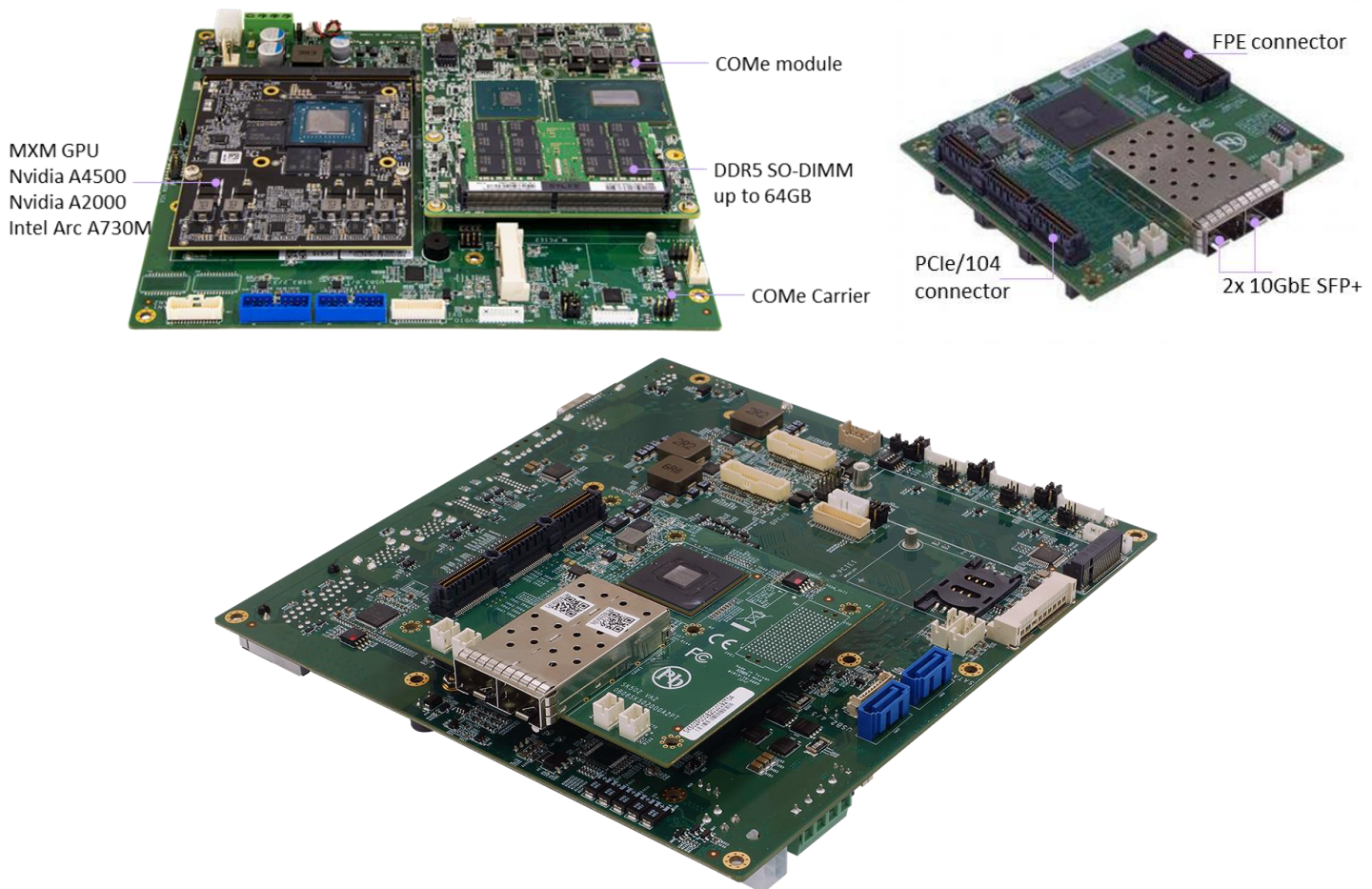|	
MIL-STD-810 Test	Method 500.5, Procedures I and II (Altitude, Operation): 12,192M, (40,000 ft) for the initial cabin altitude (18.8Kpa or 2.73 Psia) Method 500.5, Procedures III and IV (Altitude, Non-Operation): 15,240, (50,000 ft) for the initial cabin altitude (14.9Kpa or 2.16 Psia) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure I (Storage/Low Temperature) Method 502.5, Procedure II (Operation/Low Temperature) Method 503.5, Procedure I (Temperature shock) Method 507.5, Procedure II (Temperature & Humidity) Method 509.7 Salt Spray (50±5)g/L Method 514.6, Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6, Vibration Category 20/Operating (Category 20 & 24, Vibration) Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock) Method 516.6, Shock-Procedure I Operating (Mechanical Shock)
Reliability	No Moving Parts; Passive Cooling. Designed & Manufactured using ISO 9001 Certified Quality Program.
Operating Temp	-40°C to +85°C (ambient with air flow)
Storage Temp.	-40°C to +85°C
Relative Humidity	5% to 95%, non-condensing.

Ordering Information

	THOR200-RSH-A45	THOR200-RSH-A73	THOR200-RSL
CPU	I7-13800HRE		
GPU	NVIDIA MXM A4500	Intel Arc A730M	NVIDIA MXM A2000
RAM	DDR5 64GB		
Storage	1x M.2 2280 M-key SATA SSD up to 2TB		
PSU	9V~36V DC-IN		
Front I/O	2x 2.5GbE LAN T-Base.(2x 10GbE SFP+ option)		
	2x USB3.0 + 2x USB2.0		
	2x DP ports		
	1x Lin-out + 1x Mic-in		
	1x RS232 (Front I/O)		
	Power Switch + HDD/SSD LED		
Rear I/O	4x 1GbE LAN T-Base		
	2x RS232/422/485		
	1x 4P Terminal : 9V~36V DC-IN		
Dimension	220(W) x 230(L) x 60.6(H) mm		220(W) x 230(L) x 50(H) mm

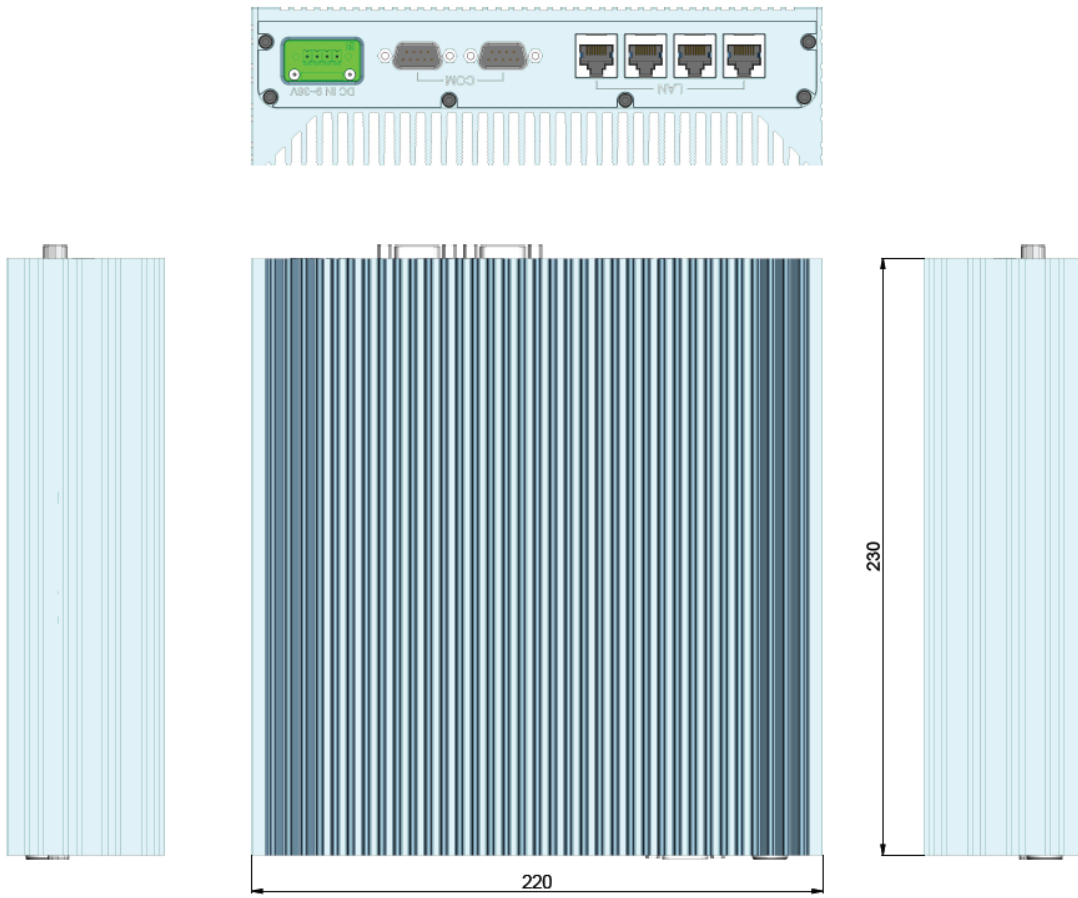# Diagram : COMe+T6 + MXM; +2x 10G SFP+

Appearance

THOR200-RSH:

THOR200-RSL:

Dimension

THOR200-RSH:

THOR200-RSL: