CPT200-S

Fanless Embedded System With Intel® Raptor Lake-S Refresh 14ᵀᴴ/13ᵀᴴ Gen Socket Processor

- Intel® Raptor Lake-S Core™ i Processor
- DDR5-4800 SO-DIMM up to 96G (non-ECC/ ECC)
- 8 x USB3.2, 4 x 2.5GbE LAN, 3 x COM
- Multi Display: HDMI/VGA/DP
- 1 x Swappable 2.5" SSD Tray
- 1 x PCIe Expansion
- System Power Wide Range DC-IN 9~48V
- Operating Temperature -20°C to 60°C
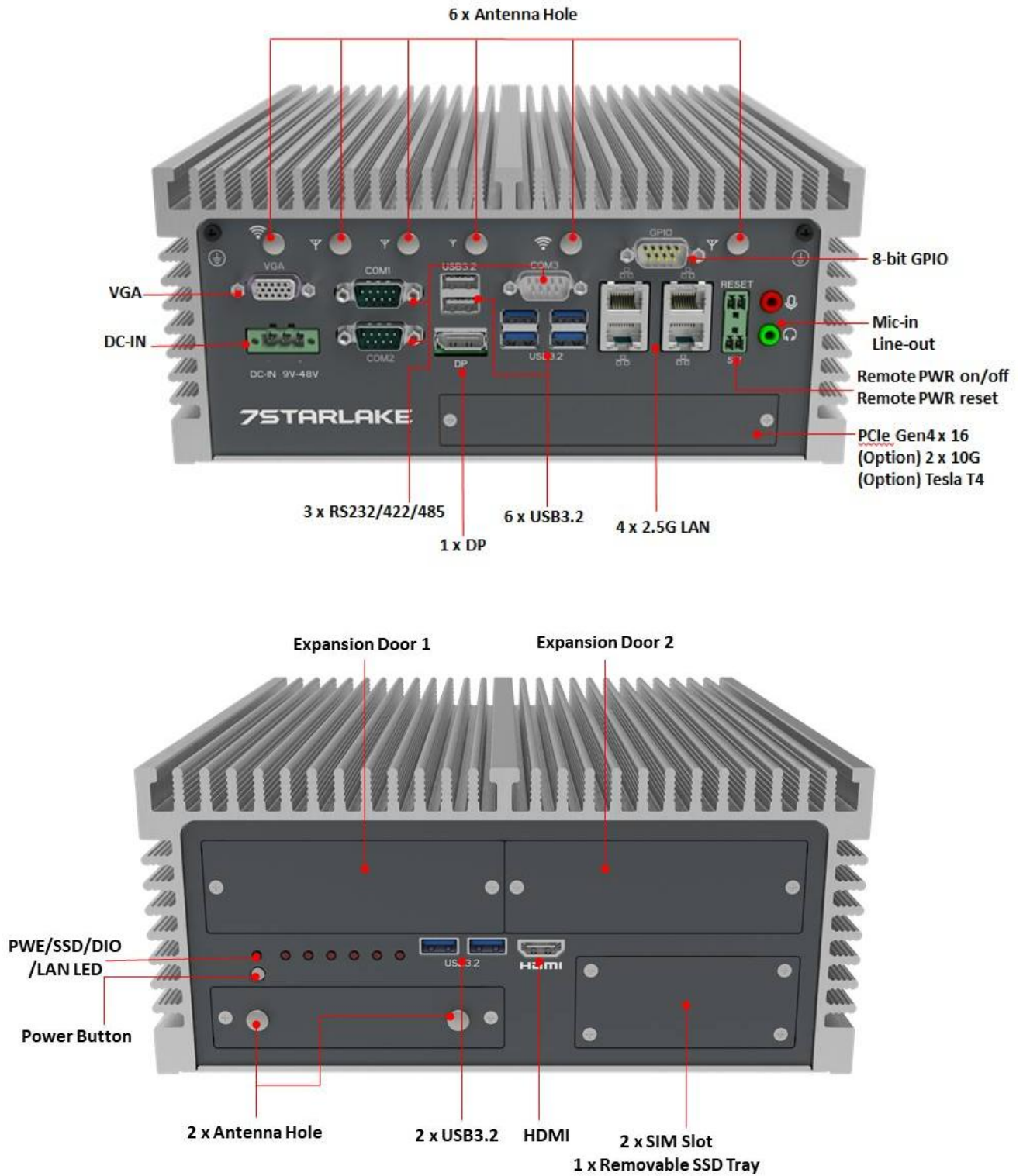- Optional Expansion: PoE (RJ45)/CANBUS/DIDO

Introduction

Purpose-built for rugged environments and demanding applications, the IP66-rated fanless embedded CPT200-S offers robust protection against dust, water, and harsh conditions. With 1 x PCIe expansion slot, it provides flexibility for system upgrades and add-on cards, making it ideal for deployment in transportation systems, heavy-duty vehicles, mining trucks, and outdoor industrial consoles.

Powered by the Intel® 14th/13th Gen Raptor Lake-S Core™ i9/i7/i5/i3 processors (up to 65W), the CPT200-S delivers up to 1.35× greater performance than previous generations, ensuring faster data processing and improved multitasking for demanding applications. Its optimized architecture provides lower latency, higher throughput, and reduced power consumption, enabling reliable operation in mission-critical environments. This powerful platform is designed to support real-time monitoring, edge AI, predictive maintenance, and data-intensive industrial control.

The CPT200-S supports DDR5-4800 SO-DIMM memory up to 96GB and offers extensive connectivity with 8× USB 3.2, 4× 2.5GbE LAN ports, and 3× COM ports, ensuring seamless integration with a wide range of peripherals, sensors, and network devices. Its triple-display output via HDMI, VGA, and DP provides versatile visualization options for control rooms or multi-screen dashboards. A swappable 2.5" SSD tray provides convenient storage management in the field. For specialized industrial and transportation applications, optional expansion features include PoE (RJ45) for powering network devices, CANBUS for vehicle communication systems, and DIDO for digital input/output control, further enhancing adaptability.

Built to perform under extreme conditions, the CPT200-S operates reliably in temperatures ranging from -20℃ to 60℃. Its durable aluminum enclosure not only delivers a sleek industrial appearance but also supports advanced fanless thermal management. Resistant to vibration and high heat, the CPT200-S is built to ensure uninterrupted performance in challenging environments such as transportation hubs, smart infrastructure, energy systems, and outdoor deployments.

Appearance

6 x Antenna Hole

8-bit GPIO

VGA

DC-IN

DC-IN 9V-48V

Mic-in
Line-out

Remote PWR on/off
Remote PWR reset

PCIe Gen4 x 16
(Option) 2 x 10G
(Option) Tesla T4

3 x RS232/422/485

6 x USB3.2

4 x 2.5G LAN

1 x DP

Expansion Door 1

Expansion Door 2

PWE/SSD/DIO
/LAN LED

Power Button

2 x Antenna Hole

2 x USB3.2

HDMI

2 x SIM Slot
1 x Removable SSD Tray

Specifications

System

CPU	14th/13th/12th Gen Intel® Raptor Lake-S/Alder Lake-S Core™ i9/i7/i5/i3/Celeron/Pentium (Up to 65W)
Chipset	Intel® R680E
Memory type	2 x 262-pin SO-DIMM / DDR5 4800 MHz / Max. 96GB (Non-ECC/ ECC)
Storage Device	1 x 2.5" Removable SSD Tray, 1 x Internal 2.5" SSD Tray

Expansion

M.2/mPCIe	1 x M.2 M key 2242/2260/2280 (PCIe4.0x4,SATAIII) w/OS Storage 1 x M.2 B key 3042/3052/2260 (PCIex1,USB,SATAIII) w/4G,5G 1 x M.2 E key 2230 (PCIex1,USB) w/wifi, BT 1 x mPCIe (PCIex1,USB,SATAIII)

Front I/O

HDMI	1 x HDMI
USB	2 x USB3.2 Gen2 x 2
SIM Slot	2
I/O Expansion Door	3
Swappable SSD Tray	1
Power Button	1
PWR LED	1
HDD LED	1
GPIO LED	1
LAN ACT LED	4

Rear I/O

COM	3 x RS232 / 422 / 485
Ethernet	4 x RJ45
USB	6 x USB3.2 Gen2 x 2
GPIO	8bit (4in/4out)
DisplayPort	1 x DP
VGA	1 x VGA
Terminal Block	1 x Terminal Block Remote Power ON/OFF 1 x Terminal Block Remote Reset

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AUDIO	1 x Mic-in, 1 x Line-out
PCIe Expansion	PCIe Gen4 x 16

Power Requirement

Power Input	DC-IN 9~48V

Applications, Operating System

Operating System	Windows 10/11 64Bit; Linux (support by request)

Physical

Dimensions (W x D x H)	248 x 268 x 108 mm
Chassis	Aluminum
Heatsink	Aluminum Alloy, Corrosion Resistant
Finish	Anodic aluminum oxide

Environmental

Green Product	RoHS designed to meet
Operating Temperature	35W TPD Processor: -20 to 60°C 65W TPD Processor: -20 to 50°C
Storage Temperature	-40°C to 85°C
Relative Humidity	5% to 95%, non-condensing
EMC	CE and FCC designed to meet

MIL-STD-810 Environment Testing Standards

Method 501, Operational Temperature, high	Procedure II: +60°C, two-hour dwell, four cycles
Method 501, Storage Temperature, high	Procedure I: +70°C, two-hour dwell, four cycles
Method 502, Operational Temperature, low	Procedure II: -20°C, two-hour dwell, four cycles
Method 502, Storage Temperature, low	Procedure I: -30°C, two-hour dwell, four cycles
Method 514, Vibration	Category 24/Non-Operating (Category 20 & 24, Vibration)
Method 514, Vibration	Category 20/Operating (Category 20 & 24, Vibration)
Method 516, Shock	Procedure V Non-Operating (Mechanical Shock)
Method 516, Shock	Procedure I Operating (Mechanical Shock)
Method 507, Humidity	Procedure II: exposure to 10 cycles of 95% relative humidity at temperatures of 30 °C to 60 °C with conformal coating (optional)

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Ordering Information

CPT200-S

Fanless Computer with Intel 14/13/12th Gen. Core i9/i7/i5/i3 Processor up to 65W , 96G SO-DIMM DDR5 4800MHz, 4 × 2.5GbE RJ45, 8 x USB3.2, 1 x DP, 1 x HDMI, 1 x VGA, 3 x COM, 8-bit GPIO, 1 x SwapSSD Tray, 1 x Internal SSD Tray, 1 x PCIe Expansion, DC-IN 9~48V, Operating Temperature -20°C~+60°C

Model	CPU	PoE (Option)	CANBUS (Option)	8bit DIDO (Option)	10G (Option)	GPU T4
CPT200-S-i5	RPL-S i5-13500TE	N/A	N/A	N/A	N/A	N/A
CPT200-S-i5-4P		4 x PoE	N/A	N/A		
CPT200-S-i5-4P2C			2 x CANBUS	N/A		
CPT200-S-i5-4P8D			N/A	4in/4out DIDO		
CPT200-S-i5-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-S-i5-8P		8 x PoE	N/A	N/A		
CPT200-S-i5-8P2C			2 x CANBUS	N/A		
CPT200-S-i5-8P8D			N/A	4in/4out DIDO		
CPT200-S-i5-12P		12 x PoE	N/A	N/A		
CPT200-S-i7	RPL-S i7-13700TE	N/A	N/A	N/A		
CPT200-S-i7-4P		4 x PoE	N/A	N/A		
CPT200-S-i7-4P2C			2 x CANBUS	N/A		
CPT200-S-i7-4P8D			N/A	4in/4out DIDO		
CPT200-S-i7-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-S-i7-8P		8 x PoE	N/A	N/A		
CPT200-S-i7-8P2C			2 x CANBUS	N/A		
CPT200-S-i7-8P8D			N/A	4in/4out DIDO		
CPT200-S-i7-12P		12 x PoE	N/A	N/A		
CPT200-S-i9	RPL-S i9-13900TE	N/A	N/A	N/A		
CPT200-S-i9-4P		4 x PoE	N/A	N/A		
CPT200-S-i9-4P2C			2 x CANBUS	N/A		
CPT200-S-i9-4P8D			N/A	4in/4out DIDO		
CPT200-S-i9-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-S-i9-8P		8 x PoE	N/A	N/A		
CPT200-S-i9-8P2C			2 x CANBUS	N/A		
CPT200-S-i9-8P8D			N/A	4in/4out DIDO		
CPT200-S-i9-12P		12 x PoE	N/A	N/A		

Model	CPU	PoE (Option)	CANBUS (Option)	8bit DIDO (Option)	10G (Option)	GPU T4
CPT200-SN-i5	RPL-S i5-13500TE	N/A	N/A	N/A	2 x 10G LAN	N/A
CPT200-SN-i5-4P		4 x PoE	N/A	N/A		
CPT200-SN-i5-4P2C			2 x CANBUS	N/A		
CPT200-SN-i5-4P8D			N/A	4in/4out DIDO		
CPT200-SN-i5-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-SN-i5-8P		8 x PoE	N/A	N/A		
CPT200-SN-i5-8P2C			2 x CANBUS	N/A		
CPT200-SN-i5-8P8D			N/A	4in/4out DIDO		
CPT200-SN-i5-12P		12 x PoE	N/A	N/A		
CPT200-SN-i7	RPL-S i7-13700TE	N/A	N/A	N/A		
CPT200-SN-i7-4P		4 x PoE	N/A	N/A		
CPT200-SN-i7-4P2C			2 x CANBUS	N/A		
CPT200-SN-i7-4P8D			N/A	4in/4out DIDO		
CPT200-SN-i7-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-SN-i7-8P		8 x PoE	N/A	N/A		
CPT200-SN-i7-8P2C			2 x CANBUS	N/A		
CPT200-SN-i7-8P8D			N/A	4in/4out DIDO		
CPT200-SN-i7-12P		12 x PoE	N/A	N/A		
CPT200-SN-i9	RPL-S i9-13900TE	N/A	N/A	N/A		
CPT200-SN-i9-4P		4 x PoE	N/A	N/A		
CPT200-SN-i9-4P2C			2 x CANBUS	N/A		
CPT200-SN-i9-4P8D			N/A	4in/4out DIDO		
CPT200-SN-i9-4P2C8D			2 x CANBUS	4in/4out DIDO		
CPT200-SN-i9-8P		8 x PoE	N/A	N/A		
CPT200-SN-i9-8P2C			2 x CANBUS	N/A		
CPT200-SN-i9-8P8D			N/A	4in/4out DIDO		
CPT200-SN-i9-12P		12 x PoE	N/A	N/A		

Model	CPU	PoE (Option)	CANBUS (Option)	8bit DIDO (Option)	10G (Option)	GPU T4
CPT200-ST-i5	RPL-S i5-13500TE	N/A	N/A	N/A	N/A	Tesla T4
CPT200-ST-i5-4P		4 x PoE	N/A	N/A		
CPT200-ST-i5-4P2C		4 x PoE	2 x CANBUS	N/A		
CPT200-ST-i5-4P8D		4 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i5-4P2C8D		4 x PoE	2 x CANBUS	4in/4out DIDO		
CPT200-ST-i5-8P		8 x PoE	N/A	N/A		
CPT200-ST-i5-8P2C		8 x PoE	2 x CANBUS	N/A		
CPT200-ST-i5-8P8D		8 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i5-12P		12 x PoE	N/A	N/A		
CPT200-ST-i7	RPL-S i7-13700TE	N/A	N/A	N/A		
CPT200-ST-i7-4P		4 x PoE	N/A	N/A		
CPT200-ST-i7-4P2C		4 x PoE	2 x CANBUS	N/A		
CPT200-ST-i7-4P8D		4 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i7-4P2C8D		4 x PoE	2 x CANBUS	4in/4out DIDO		
CPT200-ST-i7-8P		8 x PoE	N/A	N/A		
CPT200-ST-i7-8P2C		8 x PoE	2 x CANBUS	N/A		
CPT200-ST-i7-8P8D		8 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i7-12P		12 x PoE	N/A	N/A		
CPT200-ST-i9	RPL-S i9-13900TE	N/A	N/A	N/A		
CPT200-ST-i9-4P		4 x PoE	N/A	N/A		
CPT200-ST-i9-4P2C		4 x PoE	2 x CANBUS	N/A		
CPT200-ST-i9-4P8D		4 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i9-4P2C8D		4 x PoE	2 x CANBUS	4in/4out DIDO		
CPT200-ST-i9-8P		8 x PoE	N/A	N/A		
CPT200-ST-i9-8P2C		8 x PoE	2 x CANBUS	N/A		
CPT200-ST-i9-8P8D		8 x PoE	N/A	4in/4out DIDO		
CPT200-ST-i9-12P		12 x PoE	N/A	N/A		