



LAND



SEA



AIR

CPT200NG

FANLESS IP66 IN-VEHICLE COMPUTER
WITH INTEL® RAPTOR LAKE-S REFRESH
14/13TH GEN SOCKET PROCESSOR



- Intel® Raptor Lake-S Core™ i Processor
- NVIDIA RTX 4000 SFF Ada GPU
- DDR5-4800 SO-DIMM up to 96G (non-ECC /ECC)
- 4 x 2.5GbE LAN w/M12
- 2 x RS232/422/485 w/M12
- 4 x RJ45 Intel i210-IT GbE LAN with PoE+ w/ M12
- 2 x Internal 2.5" SSD Tray
- 1 x DC-IN w/M12
- M20 Connectors: 1 x MiniDP, 1 x USB 3.0
- Operating Temperature -20°C to 60°C
- MIL-STD-810 Standards for Shock, Vibration and Wide Temperatures

Introduction

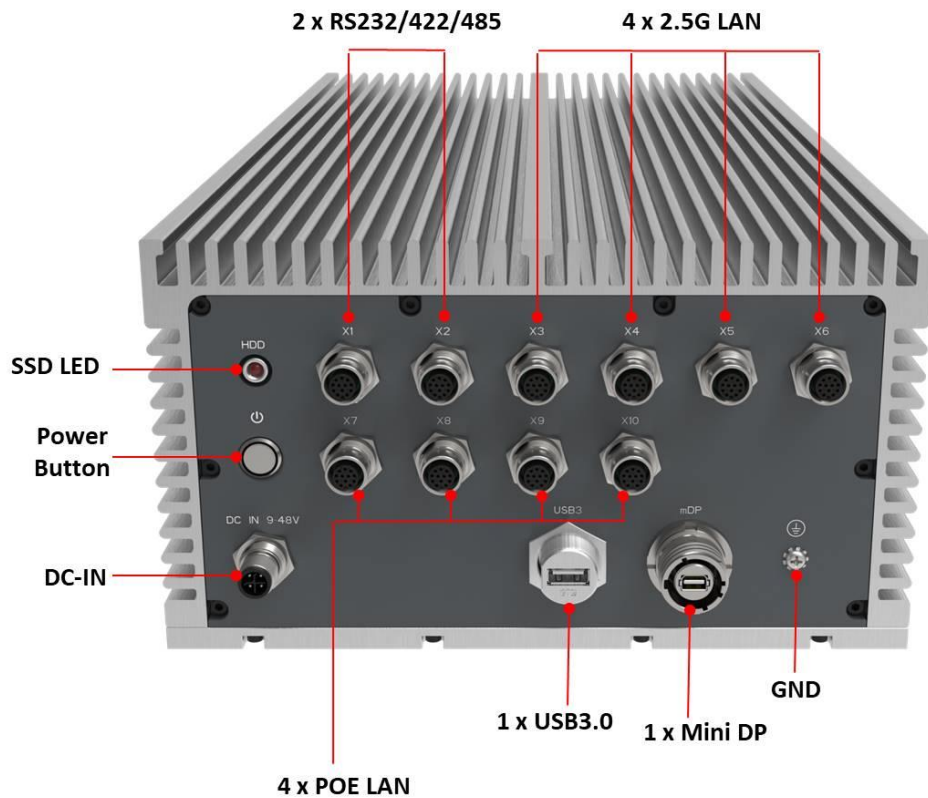
The IP66 Fanless In-Vehicle GPU Computer CPT200X2 Series is engineered for mission-critical edge applications that demand both performance and durability. Equipped with the latest Intel® Raptor Lake-S Core™ i Processor and NVIDIA RTX 4000 SFF Ada GPU with supporting up to 96GB of DDR5-4800 SO-DIMM, it provides the computing power required for real-time AI workloads, machine vision, and autonomous control. Its rugged, fanless design ensures reliable, silent operation in even the most challenging environmental conditions.

Designed for autonomous electric mining trucks, robotic arms, and other industrial automation systems, the CPT200X2 provides a robust platform for next-generation smart machinery. With IP66-rated protection, it withstands dust, water, and extreme conditions, and the MIL-STD-810 standards ensures resilience against shock, vibration, and wide temperature ranges from -20°C to 60°C.

Connectivity and flexibility are at the heart of the CPT200X2. Equipped with M12 connectors, it offers 4 x 2.5GbE LAN, 2 x RS232/422/485, 4 x PoE LAN, along with 1 x USB3.0 and 1 x MiniDP w/M20 for high-resolution display output. It also supports dual 2.5" SSD trays, enabling high-capacity, fast-access storage for data-intensive applications such as sensor fusion, video analytics, and AI inference at the edge.

With its rugged construction, advanced processing capabilities, and versatile connectivity, the CPT200X2 series delivers a robust solution for industrial in-vehicle GPU computing. Whether powering autonomous fleets in mining operations or enabling high-precision robotics in factories, the CPT200X2 series is built to deliver reliability, efficiency, and performance under the most demanding conditions.

Appearance



Specifications

SYSTEM

CPU	14th/13th/12th Gen Intel® Raptor Lake-S/Alder Lake-S Core i9/i7/i5/i3/Celeron/Pentium (Up to 35W)
Chipset	Intel® R680E
GPU	NVIDIA RTX 4000 SFF Ada
Memory Type	2 x 262-pin SO-DIMM/ DDR5 4800 MHz/ Max. 96 GB (Non-ECC/ ECC)
Storage Device	2 x 2.5" Internal SSD Tray

EXPANSION

M.2	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/Wi-Fi, BT 1 x mPCIe (PCIex1,USB,SATAIII)
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FRONT I/O

COM	2 x RS232/422/485 w/2 x M12
LAN	4 x 2.5GbE LAN w/4 x M12
PoE	4 x PoE LAN w/4 x M12
USB3.0	1 x USB3.0 w/1 x M20
Display	1 x MiniDP w / 1 x M20
Power Input	1 x DC-IN w/ 1 x M12 (9~48V)

REAR I/O

(Option) Antenna	6 x Water-proof SMA Connector
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POWER REQUIREMENT

Power Input	DC-IN 9~48V
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OPERATING SYSTEM

Operating System	Windows 10/11 64Bit Linux (support by request)
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PHYSICAL & ENVIRONMENT

Dimensions (W x D x H)	248 x 425 x 141.2 mm
IP	IP66 designed to meet

Green Product	RoHS designed to meet
Operating Temperature	35W TPD Processor: -20°C to 60°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)

Ordering Information

CPT200X2

Fanless Embedded In-Vehicle GPU System with Intel® 14/13/12th Gen Core™ i9/i7/i5/i3 Processor up to 65W , SO-DIMM DDR5 4800MHz up to 96GB, 4 × 2.5GbE RJ45 w/M12, 2 x RS232/422/485 w/M12, 4 x PoE LAN w/M12, 1 x miniDP w/M20, 1 x USB3.0 w/M20, 2 x Internal SSD Tray, 1 x 70W NVIDIA RTX4000 SFF Ada GPU, 1 x DC-IN w/M12, 9~48V, Operating Temperature -20°C to +60°C

Model	CPT200X2-i5-R1	CPT200X2-i5-R2	CPT200X2-i7-R1	CPT200X2-i7-R2	CPT200X2-i9-R1	CPT200X2-i9-R2
CPU	i5-14501TE	i5-13500TE	i7-14701TE	i7-13700TE	i9-14901TE	i9-13900TE
Function	Q'ty		Item		Have Y / N	
2.5GbE LAN	4		X3~X6 w/M12		Y	
GbE PoE	4		X7~X10 w/M12		Y	
10GbE LAN	2		X13~X14 w/M12		N	
RS232/422/485	2		X1~X2 w/M12		Y	
CANBUS (1 to 2)	1		X11 w/M12		N	
8-bit DIDO	1		X12 w/M12		N	
MiniDP	1		Mini DP w/M20		Y	
USB3.0	1		USB3.0 w/M20		Y	

This datasheet is for marketing purposes only and does not constitute a warranty. All specifications, dimensions, and data are subject to change without notice. For the latest specifications and updates, please contact your 7STARLAKE representatives.