Fanless Mini - Intel 15th Gen In-vehicle Computer - 51

Mobile Edge System | Fanless | IP51

In-Vehicle Rugged Mini PC

Product Overview

The In-Vehicle Rugged Mini PC is designed specifically for in-vehicle use featuring a robust design to withstand harsh environments and vibrations encountered in an automotive, powered by Intel. One of the essential features of the iVRC is an intelligent ignition control system. The ignition control system allows the computer to turn on or off automatically with the vehicle's ignition status, ensuring efficient power management and reducing the risk of draining the vehicle's battery. The iVRC is equipped with multiple I/O ports . Additionally, it is ruggedized and fanless to enhance reliability and minimize maintenance requirements. These rugged in-vehicle computers are commonly used in a variety of applications, such as fleet management, transportation systems, public safety vehicles and other industries that require reliable computing capabilities in demanding conditions.

Key Specifications

- Processor: Intel Core Ultra 5 225U - Intel Core Ultra 7 255U
- Operating Range: -15C to 60C
- Intelligent Ignition Control
- Dual 1GbE LAN
- Anti Vibration Plate

Key benefits of **FANLESS** and **RUGGED** computers

- No fans obviously means no noise, but it's not the only benefit!
- No fans allow an important decrease in power consumption, making our products more sustainable!
- A fanless computer eliminates the risk to draw in dust and dirt from the environment, the cause of potential failures and costly downtime.
- The absence of moving parts enable our products to resist shocks and vibrations, for an increased reliability.
- They are built to withstand harsh and constrained working conditions.
- High Ingress Protection (IP) rating, indication the protection level of products against both solid and liquids in electrical enclosures.
- The in-house designed and milled aluminium chassis is optimized for efficient passive cooling and durability. Its conception proved their reliability in extended operating temperatures.
- The aluminium used for the chassis production is repurposed and recycled, and the production waste is recycled too!

SOLUTION FAMILY

Tranquil IT - Mobile Edge Systems

This platform is delivered within the Tranquil IT solution family by 2CRSi Edge. Configuration options including OS imaging, software preload, and customer branding are available without altering the certified platform baseline

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I/O Rear

2x RJ45 for LAN, 2x USB3.2, 1x Display Port, 1x HDMI, 1 x 3.5mm Audio-Out, 1 x 3.5mm Mic-In, Sim Slot

Technical Specification

Processor	Intel Core Ultra 5 225U - 12 Core / 14 Thread - up to 4.80 GHz -12MB Smart Cache Intel Core Ultra 7 255U - 12 Core / 14 Thread - up to 5.2 GHz -12MB Smart Cache		
Memory	**Slots:** 2x SO-DIMM Slots **MAX Capacity:** 64GB **Type:** DDR5 5600 MHz SO-DIMM **ECC Support:** No	**Storage**	Storage 1 Max: 4TB M.2 NVME 2280 Storage 2 Max: 8TB 2.5" SATA SSD
Graphics Controller	Intel Arc Graphics Ultra Core	**Graphics Interface**	1 x DisplayPort 4096 x 2160 @ 60Hz 1 x HDMI 2.0 4096 x 2160 @ 60Hz
Network Interface	I219-V - 1 x RJ45 - 10/100/1000 Mbps RTL8111H - 1 x RJ45 - 10/100/1000 Mbps	**Network Options**	RTL8821CE Wi-Fi 5 IEEE 802.11 b/g/n/ac - 2.4GHz/5GHz + Bluetooth 4.2 AX210 - Wi-Fi 6E IEEE 802.11 b/g/n/ac/ax - 2.4GHz/5GHz/6GHz + Bluetooth 5.3, 4G/5G option
Network Feature	Wake-On-Lan PXE or UEFI PXE	**Remote Management**	remote switch machine intelligent
Hardware Monitoring	Watchdog On-Board	**Supported OS**	Windows 10 - 64 bit Windows 11 - 64 bit Linux
Encryption	-		
Power Input	3-pin 5.08mm pitch "Phoenix" connector		
Input Voltage	12V-34V		
Consumption	84 - 120w		

Physical Specification

I/O Front	Power/reset switch, DC-In 12-34V	**LED Front**	Power LED
LED Rear	Network Uplink/Activity	**COM Port Option**	RS232/RS422/RS485 (Optional)
Operational	-15°c to 60°c (5°F to 140°F)	**Storage Temp**	-20°c to 70°c (-4°F to 158°F)
Maximum relative humidity	5% to 95%	**Cooling Type**	Passive Cooling
Size	80 x 336 x 221 mm	**Weight**	9.4 KG
Accessories	Vibration proof mount plate	**Optional Accessories**	N/A
Certifications	CE UKCA RoHS FCC WEEE	**Warranty**	3 years

Configuration options (OS, branding, software preload) are available and do not alter the certified platform baseline. For bespoke requirements requiring engineering change, enquire about Tranquil Studio.