

In-vehicle Computing



POC-551VTC

AMD Ryzen™ V1000 Ultra-compact In-vehicle Controller with PoE+, DIO and Isolated CAN bus



Key Features

- AMD Ryzen™ embedded V1000 series quad-core 15W CPU
- -40°C to 70°C rugged wide temperature fanless operation
- Four IEEE 802.3at PoE+ ports with screw-lock
- One isolated CAN bus port for in-vehicle communication
- One M.2 socket and three mPCIe sockets
- M.2 2280 M key NVMe (Gen3 x2) socket for fast storage access
- 4-CH isolated DI and 4-CH isolated DO
- 8~35V DC input with built-in ignition power control
- E-Mark and EN 50155 certificate

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Introduction

POC-551VTC is the next generation ultra-compact, fanless in-vehicle controller offering performances never-seen-before in this form factor. Featuring AMD Ryzen™ Embedded V1000 4-core/ 8-thread processor, POC-551VTC delivers up to 3x times the CPU performance compared to previous POC series. It combines finesse performance, extraordinary reliability and affordability for versatile in-vehicle applications.

POC-551VTC offers four 802.3at PoE+ ports to supply 25W power to device such as IP cameras. As wireless connectivity is essential for modern in-vehicle application, POC-551VTC with built-in one M.2 and three mini-PCIe are more applicable for in-vehicle use nowadays. It also integrates CAN bus for in-vehicle communication, and isolated DIO for sensor/ actuator control.

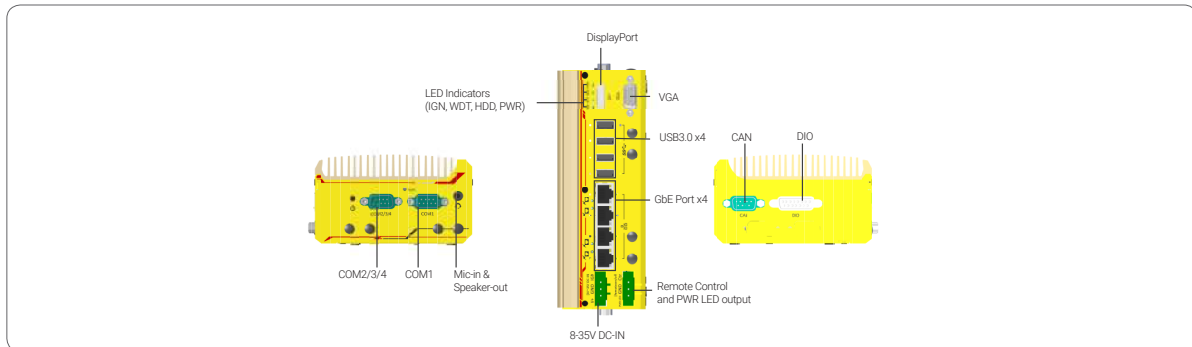
Combining ignition power control and wide-range DC input along with superior performance, POC-551VTC can provides perfect solution for all your in-vehicle application needs in an extremely compact size!

Specifications

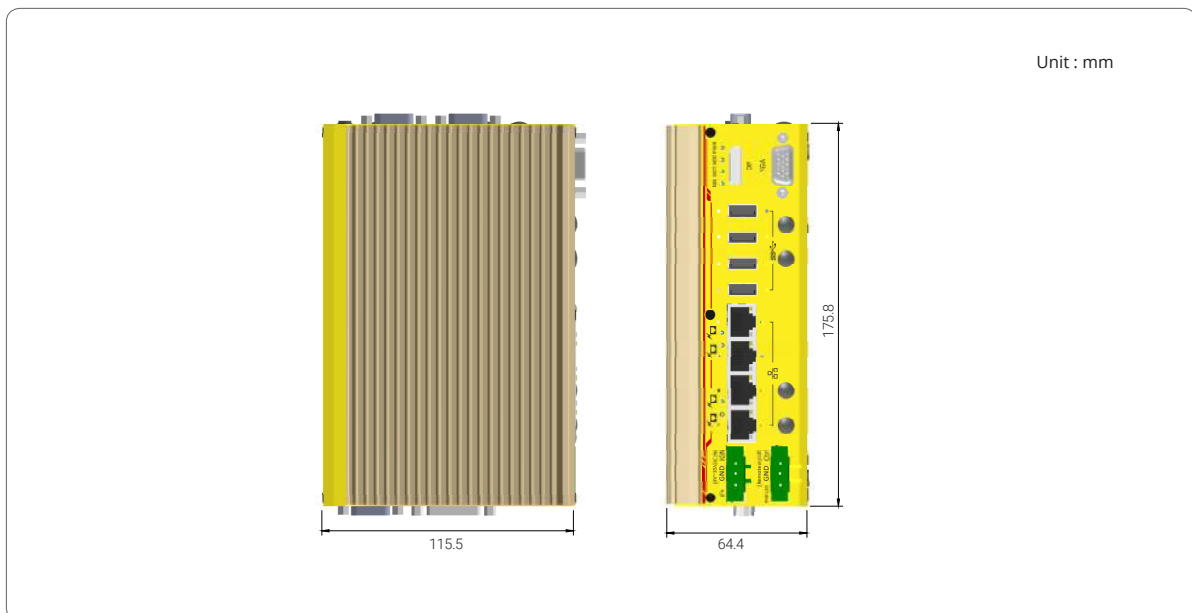
System Core		Power Supply	
Processor	AMD Ryzen™ V1605B CPU (4C/ 8T, 2M Cache, 2.0/ 3.6 GHz, 12W - 25W TDP)	DC Input	1x 3-pin pluggable terminal block for 8~35VDC DC input
Graphics	Vega GPU with 6 compute units	Remote Ctrl.&LED Output	1x3-pin pluggable terminal block for remote control and PWR LED output
Memory	Up to 16 GB DDR4-2400 SDRAM by one SODIMM sockets	Mechanical	
Panel I/O Interface		Dimension	64 mm (W) x 116 mm (D) x 176 mm (H)
Ethernet port	4x Gigabit Ethernet ports by Intel® I350-AM4 controller	Weight	
PoE+	4xIEEE 802.3at Gigabit PoE+ ports by Intel® I350-AM4	Mounting	DIN-rail (standard) or Wall-mount (optional)
CAN	1x CAN 2.0 port	Environmental	
Isolated DIO	4x Isolated DI and 4x Isolated DO	Operating Temperature	-40°C ~ 70°C*
USB	4x USB 3.0 ports with screw-lock	Storage Temperature	-40°C ~85°C
Video Port	1x VGA connector, supporting 1920 x 1200 resolution 1x DisplayPort connector, supporting 4096 x 2160 resolution	Humidity	10%~90% , non-condensing
Serial Port	1x software-programmable RS-232/ 422/ 485 ports (COM1) 3x 3-wire RS-232 ports (COM2/ 3/ 4) or 1x RS-422/ 485 port (COM2)	Vibration	IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
Audio	1x 3.5 mm jack for mic-in and speaker-out	Shock	IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
Storage Interface		EMC	EN 50155, E-Mark for in-vehicle applications CE/FCC Class A, according to EN 55022 & EN 55024
M.2	1x M.2 2280 M key NVMe socket (PCIe Gen3/ x2) installation	* For sub-zero and over 60°C operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.	
mSATA	1x full-size mSATA port		
Expansion Bus			
Mini PCIe	3x full-size mini PCI Express socket with internal SIM socket		
M.2	1x M.2 2242 B key socket for 3G/ 4G option with USIM support		

POC-551VTC

Appearance



Dimensions



Ordering Information

Model No.	Product Description
POC-551VTC	AMD Ryzen™ V1605B ultra-compact In-vehicle controller with PoE+, DIO and isolated CAN bus

Optional Accessories

PA-120W-OW	120W AC/DC power adapter 20V/6A; 18AWG/120cm; cord end terminals for terminal block, operating temperature : -30 to 70 °C.
PA-60W-OW	60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. operating temperature : -30 to 60 °C.

Optional Cellular Module

NSIO-LTE-7455	Cat. 6 LTE embedded socket modem
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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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