

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/ EN45545 certificate

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.

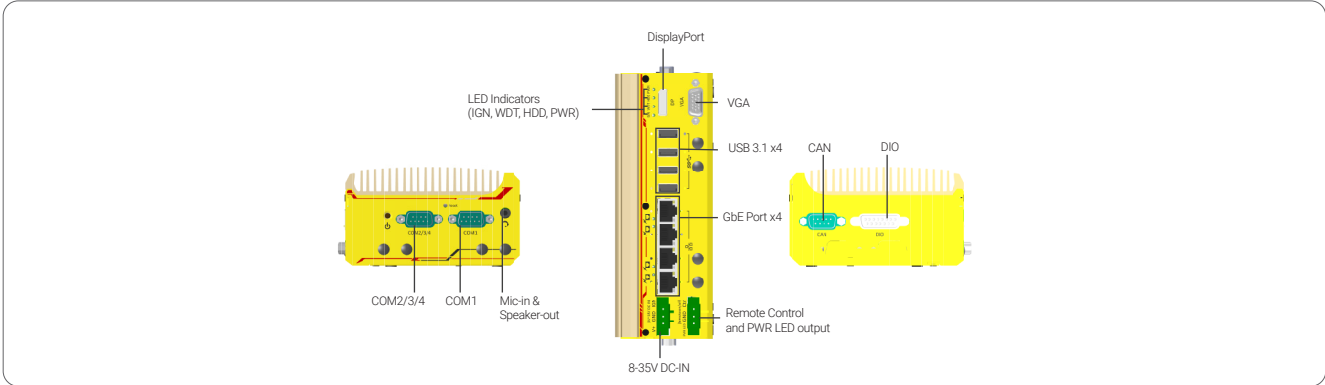
POC-551VTC offers four 802.3at PoE+ ports to supply 25W power to device such as IP cameras. As wireless connectivity is essential for modern in-vehicle application, POC-551VTC with built-in one M.2 and three mini-PCIe are more applicable for in-vehicle use nowadays. It also integrates CAN bus for in-vehicle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

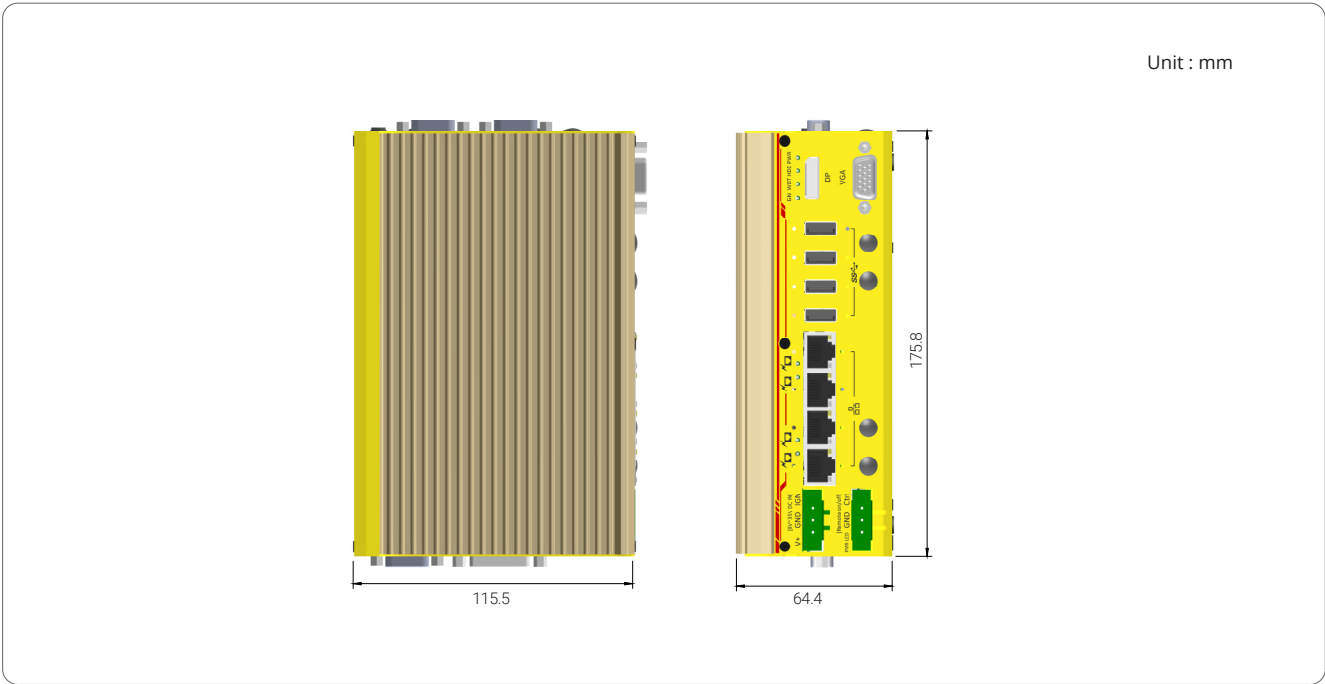
System Core		Power Supply	
Processor	AMD Ryzen™ V1605B CPU (4C/ 8T, 2M Cache, 2.0/ 3.6 GHz, 12W - 25W TDP)	DC Input	1x 3-pin pluggable terminal block for ignition signal and 8~35V DC input
Graphics	Vega GPU with 6 compute units	Remote Ctrl.&LED Output	1x3-pin pluggable terminal block for remote control and PWR LED output
Memory	Up to 16 GB DDR4-2400 SDRAM by one SODIMM sockets	Mechanical	
TPM	Supports TPM 2.0	Dimension	64 mm (W) x 116 mm (D) x 176 mm (H)
Panel I/O Interface		Weight	1.3 kg
Ethernet port	4x Gigabit Ethernet ports by Intel® I350-AM4 controller	Mounting	Wall-mount (standard) or DIN-rail mount (optional)
PoE+	4x IEEE 802.3at Gigabit PoE+ ports by Intel® I350-AM4	Environmental	
CAN	1x CAN 2.0 port	Operating Temperature	-40°C ~ 70°C*
Isolated DIO	4x Isolated DI and 4x Isolated DO	Storage Temperature	-40°C ~ 85°C
USB 3.1	4x USB 3.1 Gen1 ports with screw-lock	Humidity	10%~90% , non-condensing
Video Port	1x VGA, supporting 1920 x 1200 resolution 1x DisplayPort, supporting 4096 x 2160 resolution	Vibration	IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
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)	Shock	IEC61373:2010, Category 1, Class B Body mounted (part of EN50155)
Audio	1x 3.5 mm jack for mic-in and speaker-out	EMC	EN 50155, EN45545, E-Mark for in-vehicle applications CE/FCC Class A, according to EN 55032 & EN 55024
Storage Interface		* For sub-zero and over 60°C operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.	
M.2	1x M.2 2280 M key NVMe socket (PCIe Gen3/ x2) installation		
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		

Appearance



Dimensions

Unit : mm



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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