

# 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(E13 No.10R-0615611) 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.

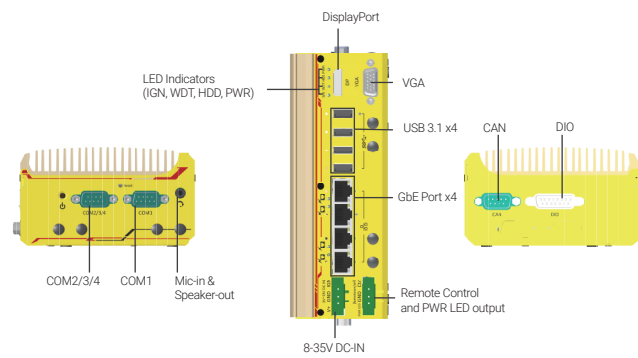
POC-551VTC offers four 802.3at PoE+ ports to supply 25W power to device such as IP cameras. As wireless connectivity is essential for modern in-vehicle application, POC-551VTC with built-in one M.2 and three mini-PCIe are more applicable for in-vehicle use nowadays. It also integrates CAN bus for in-vehicle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

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

## Specifications

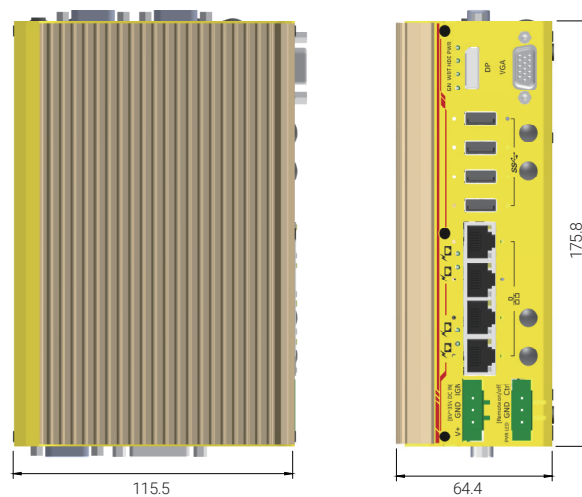
| System Core                |   | Power Supply  |   |
|----------------------------|---|---|---|
| Processor                  | AMD Ryzen™ V1605B CPU (4C/ 8T, 2M Cache, 2.0/ 3.6 GHz, 12W - 25W TDP)   | DC Input  | 1x 3-pin pluggable terminal block for ignition signal and 8~35V DC input                                  |
| 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   | <b>Mechanical</b>   |   |
| TPM                        | Supports TPM 2.0  | Dimension   | 64 mm (W) x 116 mm (D) x 176 mm (H)   |
| <b>Panel I/O Interface</b> |   | 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   | <b>Environmental</b>  |   |
| 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<br>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)<br>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<br>CE/FCC Class A, according to EN 55032 & EN 55024 |
| <b>Storage Interface</b>   |   | * 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   |   |   |
| <b>Expansion Bus</b>       |   |   |   |
| 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 |
|---------------|----------------------------------|