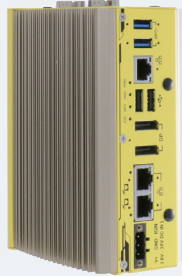


# POC-451VTC Series

Intel® Elkhart Lake Atom® x6425E Ultra-compact In-vehicle Computer with 3x 2.5G, PoE+ and M.2/mPCIe for WIFI/4G/5G Modules



## Key Features

- Intel® Atom® x6425E quad-core processor
- Rugged -25°C to 70°C fanless operation
- 2x 2.5GbE PoE+ ports and 1x 2.5GbE port
- 1x M.2 2242/ 3052 B key for 4G/5G module
- 2x M.2 2230 E key for WIFI and edge TPU module
- Conduction-cooled heatsink for M.2/ mPCIe modules
- Dual M.2 2280 M key for SATA SSD
- 8~35V DC input with built-in ignition power control

## Introduction

POC-451VTC is an ultra-compact in-vehicle computer with E-Mark certificate for in-vehicle applications, such as mobile gateway, mobile surveillance and passenger information system. It leverages the latest Intel® Elkhart Lake Atom® x6425E CPU, delivering 1.8x and 2x performance improvement for the CPU and GPU respectively, compared to the previous generation.

POC-451VTC provides multiple M.2 and mPCIe slots for installation of 4G/5G, WIFI5/6, CAN bus and edge TPU module for modern in-vehicle applications. It can therefore extend WIFI and broadband wireless communication as well as AI inference functionality inside a compact footprint. More than that, POC-451VTC introduces a dedicated conduction-cooled heat spreader to bring out and dissipate heat generated by M.2/mPCIe modules to maintains optimal system performance at high temperature environment.

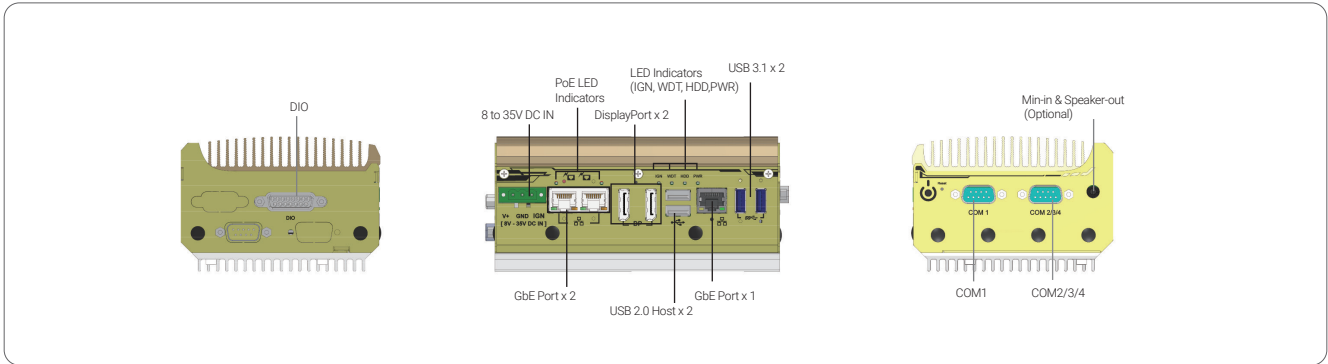
POC-451VTC further offers three 2.5GBASE-T Ethernet ports with PoE+ capability for powering PoE PD devices, such as IP camera and GigE camera. They are backward-compatible with 1000/100 Mbps Ethernet to work with most existing Ethernet devices. It also provides isolated DIO for sensor/ actuator control and 8V-35V wide range DC input with ignition power control for in-vehicle deployment.

Combining significant performance boost, 2.5G PoE+ ports, superior thermal reliability for communication and inference, POC-451VTC is a AI-capable, mobile gateway solution to explore more possibility of versatile in-vehicle applications.

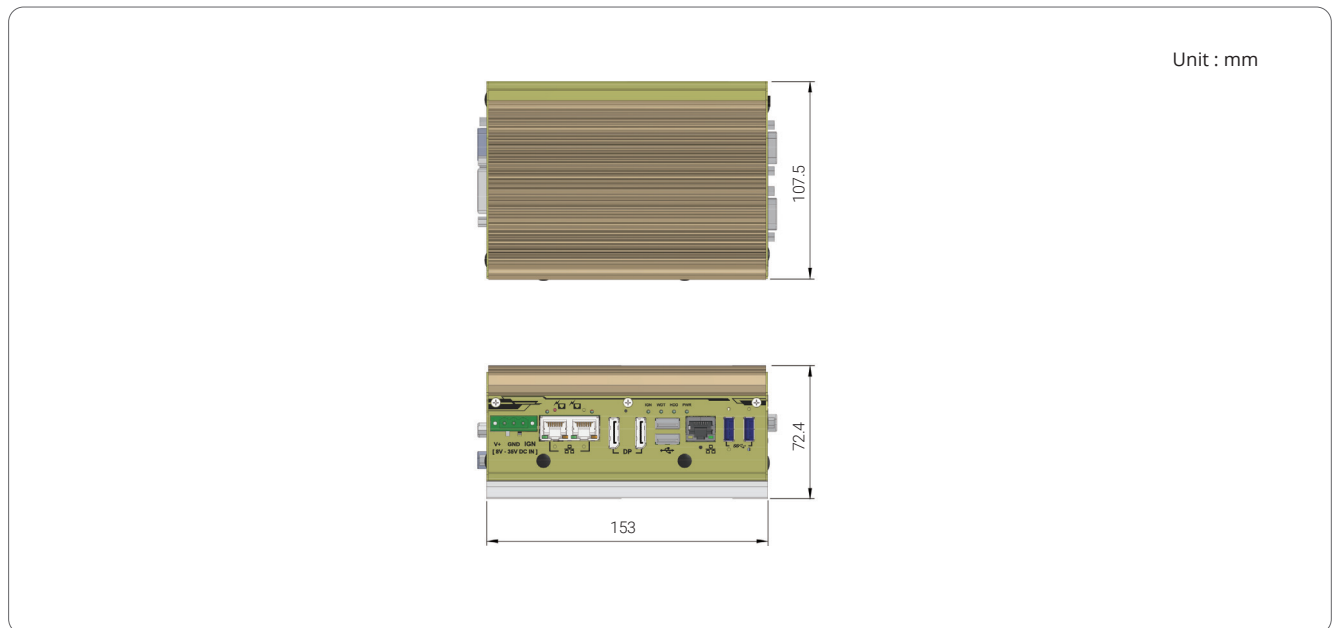
## Specifications

System Core		Power Supply	
Processor	Intel® Elkhart Lake Atom® x6425E quad-core 2.0GHz/3.0GHz 12W processor	DC Input	1x 3-pin pluggable terminal block for 8 to 35V DC input
Graphics	Integrated Intel® UHD Graphics	Mechanical	
Memory	Up to 32 GB DDR4-3200 SDRAM by one SODIMM socket	Dimension	153 mm (W) x 108 mm (D) x 72 mm (H)
TPM	Supports fTPM 2.0	Weight	0.96 kg
Panel I/O Interface		Mounting	Vertical-type wall-mount (standard) DIN-rail mount (optional)
Ethernet	3x 2.5GBASE-T Ethernet ports by Intel® I225 GbE controllers	Storage Interface	
PoE	IEEE 802.3at PoE+ on port #2 and #3	M.2 M key	2x M.2 2280 M key sockets for SATA SSD
Video Port	2x DisplayPort connector, supporting 4096 x 2160 resolution @ 60Hz	Environmental	
USB 3.1	2x USB 3.1 Gen1 (5 Gbps) ports	Operating Temperature	-25°C ~ 70°C*/**
USB 2.0	2x USB 2.0 ports	Storage Temperature	-40°C ~85°C
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)	Humidity	10%~90% , non-condensing
Audio	Optional 1x 3.5 mm jack for mic-in and speaker-out	Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4
Isolated DIO	4x isolated DI and 4x isolated DO	Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
Internal Expansion Bus		EMC	E-Mark CE/FCC Class A, according to EN 55032 & EN 55035
M.2 E key	2x M.2 2230 E key socket for WiFi or Google edge TPU	* For wide temperature use condition, a wide temperature/industrial M.2 M key SATA SSD module is required.	
M.2 B key	1x M.2 2242/ 3052 B key socket for 4G/5G module with dual SIM support	** For full function use condition (mini-PCIe and M.2 are all adopted), the operating temperature may be constrained by mini-PCIe and M.2 modules. Please contact Neosys Technology.	
Mini-PCIe	1x full-size mini-PCIe socket (USB2 signal only)		

## Appearance



## Dimensions



## Ordering Information

Model No.	Product Description
POC-451VTC	Intel® Elkhart Lake Atom® x6425E ultra-compact in-vehicle computer with 3x 2.5G, PoE+ and M.2/mPCIe for WIFI/4G/5G modules

## Optional Accessories

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
PA-120W-OW	60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. Operating temperature : -30 to 60 °C
Cbl-DB9F-3DB9M-15CM	1x DB9 (Female) to 3x DB9 (Male), length: 15CM