In-vehicle Computing



# **POC-751VTC**

Intel® Core™ i3-N305 Ultra-compact In-Vehicle Computer with 4x PoE+, HDMI, SocketCAN, and mPCle for WiFi/ 4G/ 5G Modules









### **Key Features**

- · Intel® Alder Lake Core™ i3-N305 processor 15W with 8 E-Cores
- · 4x GbE PoE+ ports/ 4x USB3.2 Gen 2 with screw-lock
- · DP++/ HDMI 1.4b dual display outputs
- · 2x isolated CAN 2.0 port, supporting SocketCAN in Linux
- · 2x mPCle for WiFi/ 4G/ 5G module with conduction-cooled heatsink
- · 8-CH isolated DI & 8-CH isolated DO
- · 8V 35V DC input with built-in ignition power control
- · E-Mark certified and EN 50155 EMC compliant

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#### Introduction

POC-751VTC is Neousys' next-generation ultra-compact in-vehicle computer with E-Mark certification for in-vehicle applications such as a mobile gateway, mobile surveillance, and passenger information system.

POC-751VTC utilizes the latest Intel® Alder Lake i3-N305 with eight CPU cores and supports up to 16GB of DDR5-4800 memory, capable of delivering up to 1.5x the CPU performance when compared to previous POC-551VTC. And with Intel's UHD Graphics supporting Open Visual Inference and Neural network Optimization (OpenVINO), users can execute deep learning and inference models for light AI applications.

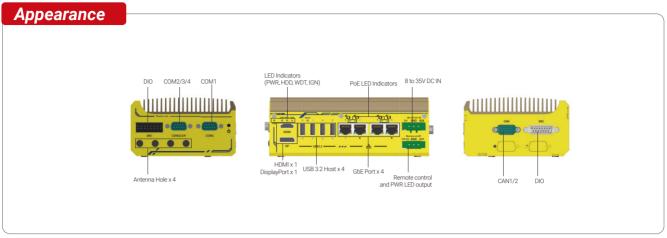
The system offers four 802.3at PoE+ ports to supply 25W power to compatible connected devices such as IP cameras. Internal expansion wise, the system features two heatsink cooled mini-PCle slots for wireless communication module installation which is essential for future intelligent vehicle applications. There are also two isolated CAN 2.0 ports that support SocketCAN in Linux for in-vehicle communications, and isolated digital I/Os for sensor and actuator control. Power input wise, it accepts wide range 8V to 35V DC input with built-in ignition power control to suit a variety of vehicle deployments.

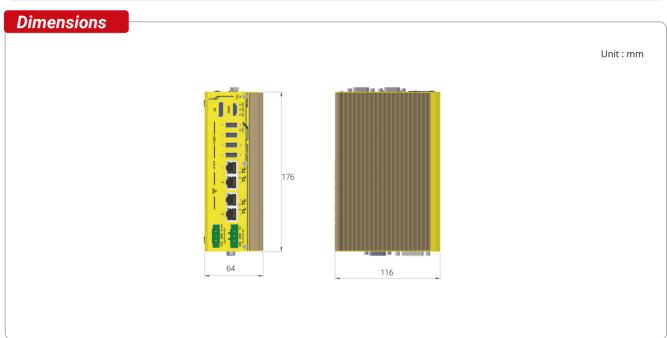
With the combination of ignition power control, wide-range DC input, rich I/Os, and edge AI capabilities, POC-751VTC is the perfect ultra-compact solution for modern intelligent in-vehicle applications.

#### **Specifications**

System Core		Power Supply	
Processor	Intel® Alder Lake Core™ i3-N305 processor (8C/8T, 1.8/3.8 GHz, 15W TDP)	DC Input	1x 3-pin pluggable terminal block for 8V to 35V DC input (IGN/GND/V+)
Graphics	Integrated Intel® UHD Graphics with 32EUs		,
Memory	Up to 16 GB DDR5-4800 SDRAM (one SODIMM socket)	Ignition Control	Built-in ignition power control
TPM	Supports dTPM 2.0	Remote Ctrl. & LED Output	1x 3-pin pluggable terminal block for remote control and PWR LED output
I/O Interface		Mechanical	
Ethernet port	4x Gb Ethernet ports by Intel® I350-AM4	Dimension	176mm (W) x 116mm (D) x 64mm (H)
PoE+	4x IEEE 802.3at Gigabit PoE+ ports via RJ45 connector	Weight	1.7kg
USB	4x USB 3.2 Gen2 ports with screw-lock		Horizontal-type wall-mount (Standard) Vertical-type wall-mount (Optional)
CAN Bus	2x isolated CAN 2.0 port, supporting SocketCAN in Linux	Mounting	
Isolated DIO	4x isolated DI and 4x isolated DO (on MB)	Environmental	
.50.0000	4x isolated DI and 4x isolated DO (on MezIO)	Operating	-40°C to 70°C
Video Port	1x DP++, supporting 4096 x 2160 @ 60Hz 1x HDMI1.4b, supporting 3840 x 2160 @ 30Hz	Temperature	
	1x software-programmable RS-232/422/485 ports (COM1)	Storage Temperature	-40°C to 85°C
Serial Port	3x 3-wire RS-232 ports (COM2/3/4) or 1x RS-422/485 port (COM2)	Humidity	10% to 90%, non-condensing
Storage Interface		Vibration	EN 50155:2017/ IEC 61373, Category I, Class B - Body mounted
M.2	1x M.2 2280 M key socket for SATA SSD storage	Shock	EN 50155:2017/ IEC 61373, Category I, Class B - Body mounted
Expansion Bus			E-Mark, EN 50121 (EN 50155 EMC)
Mini-PCle	2x full-size mPCle for WiFi/ 4G/ 5G module with conduction-cooled heatsink	EMC	CE/FCC Class A, according to EN 55032 & EN 55035
		* For sub-zero and over 60°C operating temperature, a wide temperature HDD or Solid State Disk (SSD) is require	







## Ordering Information

Model No.	Product Description
POC-751VTC	Intel® Core™ i3-N305 Ultra-compact In-vehicle Computer with 4x PoE+, HDMI, SocketCAN, and 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°C to 70°C
PA-120W-OW	120W AC/ DC power adapter with 12V, 10A DC output, cord end terminals for terminal block. Operating temperature: -30°C to 60°C
Cbl-DB9F-3DB9M-15CM	DB9 (Female) to 3x DB9 (Male), length: 15CM for COM2/3/4
Cbl-DB9F-2DB9M-15CM	DB9 (Female) to 2x DB9 (Male), Length:15CM for CAN1/2
mPCIe-M2B	NGFF M.2 key B to mini-PCle adapter with dual nano-SIM slots
mPCIe-M2E	NGFF M.2 key E to mini-PCle adapter
mPCIe-M2M	NGFF M.2 key M to mini-PCle adapter
Wmkit-V-POC500	Wall-mount assembly for POC-500 and POC-700 series, vertical type
AccsyBx-FAN-POC-700	Fan assembly for POC-700 series, 80x80x15 mm

All specifications and photos are subject to change without prior notice