NEOUSYS TECHNOLOGY

POC-351VTC Series

Intel® Apollo Lake Atom™ E3950 Ultra-compact In-vehicle Controller with GbE, PoE+ and Isolated CAN bus

Key Features

· **Intel® Apollo Lake Atom™ E3950 quad-core processor**
· **Rugged, optional -40 °C to 70 °C fanless operation**
· **Two IEEE 802.3at PoE+ ports and one GbE port**
· **One isolated CAN bus port for in-vehicle communication**
· **One M.2 socket and three mPCIe sockets**
· **Aluminum heat-spreader for M.2/ mPCIe modules**
· **4-CH isolated DI and 4-CH isolated DO**
· **8~35V DC input with built-in ignition power control**

CE FC (E13) 10R-0514746

Introduction

POC-351VTC is an ultra-compact, fanless in-vehicle controller powered by Intel® Apollo Lake Atom™ E3950 quad-core processor. It combines finesse performance, extraordinary reliability and affordability for versatile in-vehicle applications.

POC-351VTC offers two PoE+ ports to power devices such as IP cameras, and one additional GbE port for data communication. It also features isolated CAN bus 2.0 port and RS-232/ 422/ 485 ports for communicating with other automotive devices. Wide-range DC input and ignition power control make POC-351VTC fit for various vehicle types.
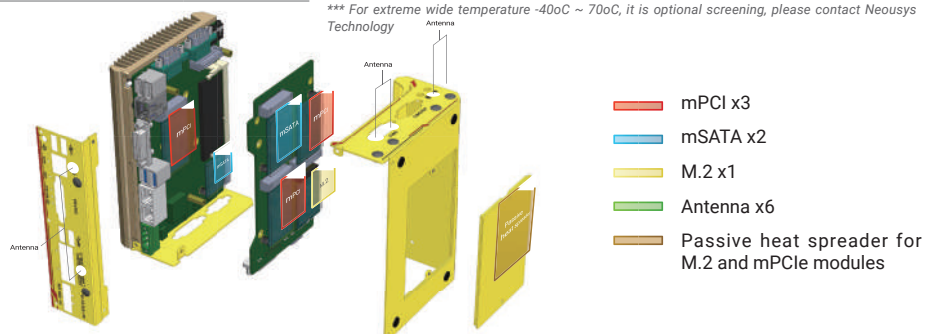
Wireless and internet access is essential for modern day in-vehicle applications and POC-351VTC has a total of four M.2/ mPCIe sockets and six antenna holes to accommodate a variety of 4G, 3G, WIFI and GPS modules. An aluminum heat-spreader is thoughtfully designed to dissipate the heat generated by modules to maintain superior operating stability, for the system and communication modules.

Specifications

System Core

Processor	Intel® Atom™ E3950 1.6/ 2.0 GHz quad-core processor
Graphics	Integrated Intel® HD graphics 505
Memory	Up to 8GB DDR3L-1866 (single SODIMM slot)

Panel I/O Interface

Ethernet	3x Gigabit Ethernet ports by Intel® I210 GbE controller
PoE	IEEE 802.3at PoE+ on port #2 and #3
Video Port	VGA and DVI dual display outputs via DVI-I
USB 3.1	2x USB 3.1 ports
USB 2.0	2x USB 2.0 ports
Serial Port	· 1x software-programmable RS-232/ 422/ 485 ports (COM1) · 3x 3-wire RS-232 ports (COM2/ COM3/ COM4) or 1x RS-422/485 port (COM2)
Audio	1x Mic-in and 1x speaker-out
CAN bus	1x isolated CAN 2.0 port
Isolated DIO	4x isolated DI and 4x isolated DO

Internal I/O Interface

M.2	1x M.2 B key socket for 3G/ 4G option with USIM support
Mini-PCIe	3x full-size mini PCI Express sockets with USIM support

Storage Interface

mSATA	1x half-size mSATA port 1x full-size mSATA port

Power Supply

DC Input	8~35 VDC
Input Connector	3-pin pluggable terminal block for DC input (IGN/ GND/ V+)

Mechanical

Dimension	153 mm (W) x 108 mm (D) x 56 mm (H) (POC-351VTC) 153 mm (W) x 108 mm (D) x 68 mm (H) (POC-351VTC-70)
Weight	1.0 kg (POC-351VTC) 1.1 kg (POC-351VTC-70)
Mounting	Horizontal Wall-mount (standard) or vertical Wall-mount (optional)

Environmental

Operating Temperature	-25°C ~ 70°C */** -40°C ~ 70°C (optional) */***
Storage Temperature	-40°C ~85°C**
Humidity	10%~90% , non-condensing
Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ mSATA, according to IEC60068-2-64)
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ mSATA, according to IEC60068-2-27)
EMC	E-Mark for in-vehicle applications CE/ FCC Class A, according to EN 55032 & EN 55024

*For wide temperature use condition, a wide temperature/industrial mSATA module is required.
** For full function use condition (mini-PCIe, M.2, and mSATA are all adopted), the recommended operating temperature is -25°C ~ 60°C
*** For extreme wide temperature -40oC ~ 70oC, it is optional screening, please contact Neousys Technology
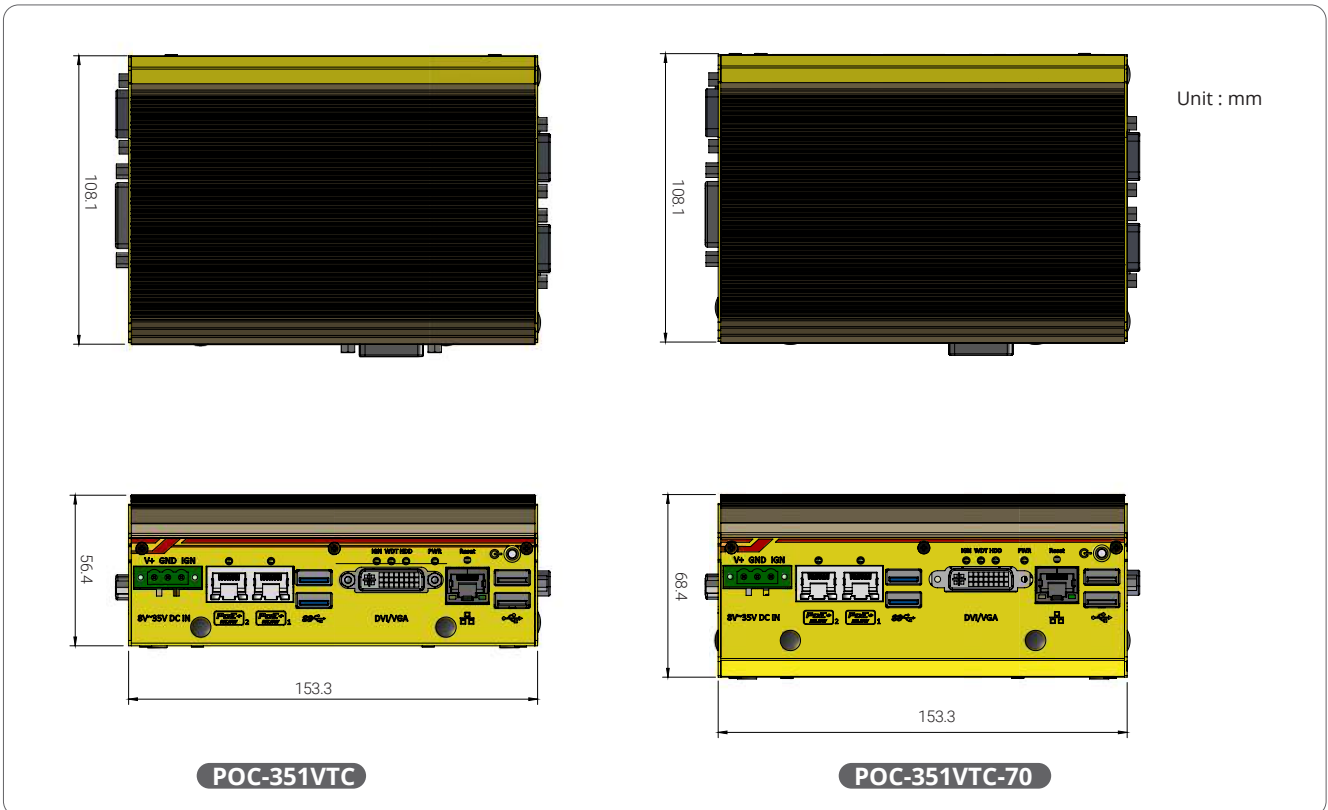

- mPCI x3
- mSATA x2
- M.2 x1
- Antenna x6
- Passive heat spreader for M.2 and mPCIe modules

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Appearance

COM2/3/4	USB 2.0 x 2
	GbE Port x 1
PWR LED Indicator	
LED Indicators (IGN, WDT, HDD)	DVI/ VGA
	USB 3.1 x 2
PWR LED Indicators	GbE Port x 2
COM1	
Mic-in & Speaker-out	CAN DIO
8-35V DC IN	

Dimensions

Unit : mm

108.1

153.3

56.4

POC-351VTC

108.1

153.3

68.4
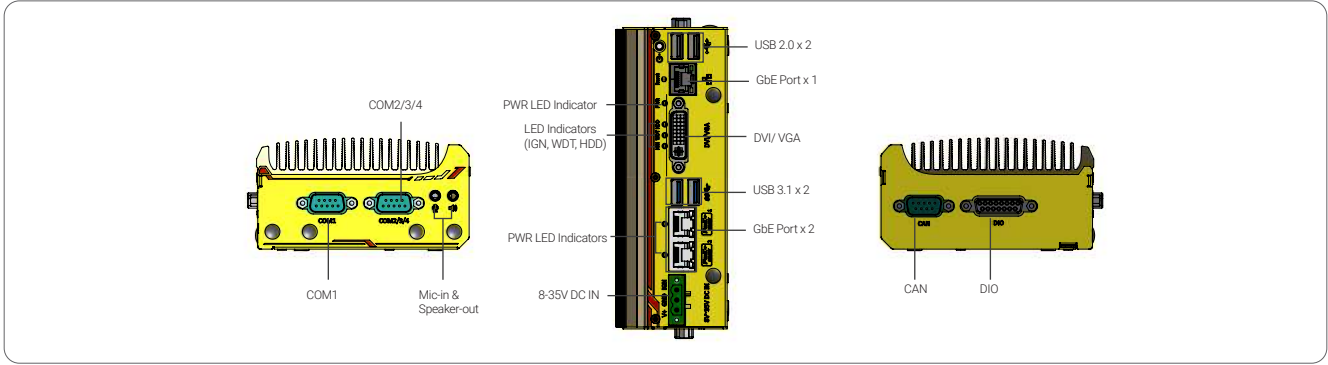
POC-351VTC-70

Ordering Information

Model No.	Product Description
POC-351VTC	Intel® Apollo Lake Atom™ E3950 ultra-compact in-vehicle controller with 1x GbE, 2x PoE+ and isolated CAN
POC-351VTC-70	Intel® Apollo Lake Atom™ E3950 ultra-compact in-vehicle controller supporting optional LTE socket modem

Optional Accessories

Wmkit-V-POC300	Wall-mount assembly for POC-351VTC, vertical type
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