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 to 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	1x 3-pin pluggable terminal block for 8V to 35V DC input with built-in ignition power control (IGN/GND/V+)
Input Connector	3-pin pluggable terminal block for DC input (IGN/ GND/ V+)

Mechanical

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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 with 100% screening, please contact Neousys Technology
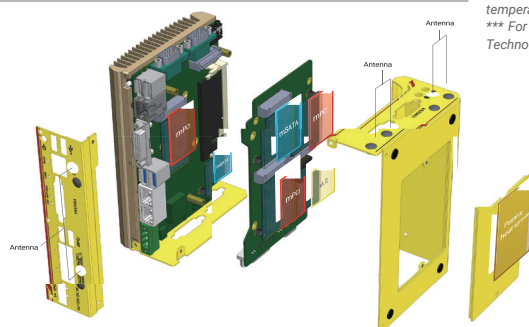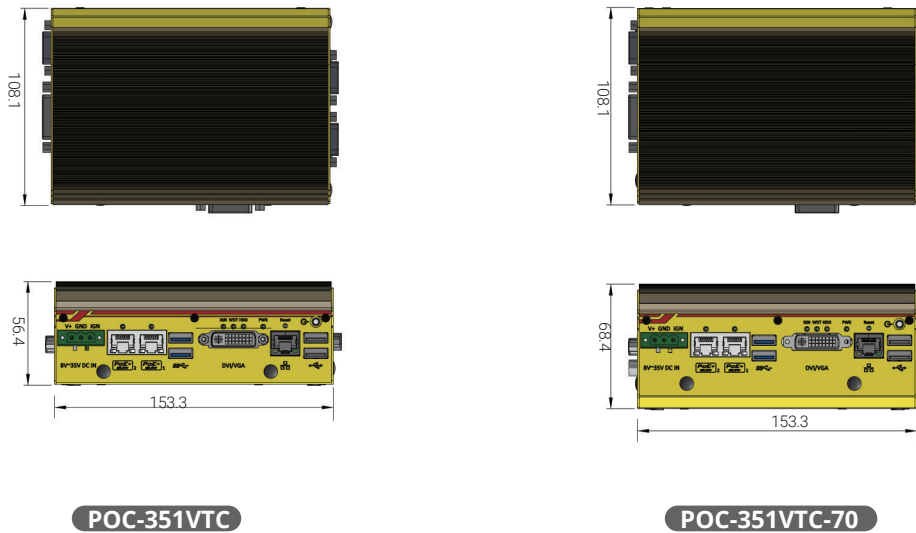

- 🟥 mPCI x3
- 🟦 mSATA x2
- 🟨 M.2 x1
- 🟩 Antenna x6
- 🟫 Passive heat spreader for M.2 and mPCIe modules

Appearance
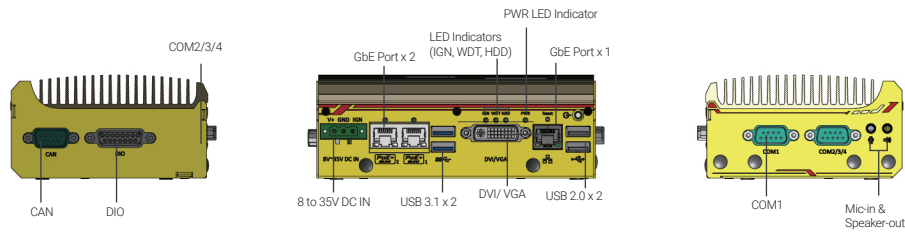
Dimensions

Unit : mm

POC-351VTC

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