ASSURED Q®
SYSTEMS

In-vehicle Computing

POC-351VTC

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

Key Features

· Intel® Apollo Lake Atom™ E3950 quad-core processor
· Rugged, -25 °C to 70 °C fanless operation
· Two IEEE 803.3at PoE+ ports and one GbE port
· One isolated CAN port for in-vehicle communication
· One M.2 socket and three mini-PCIe 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
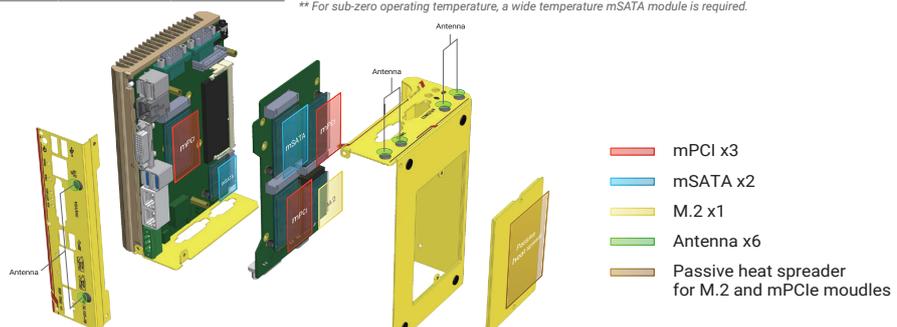
CE FC

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 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 most vehicle categories.

Wireless and internet access is essential for modern day in-vehicle applications. 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 heat generated by modules to maintain superior operating stability, for the system and communication modules.
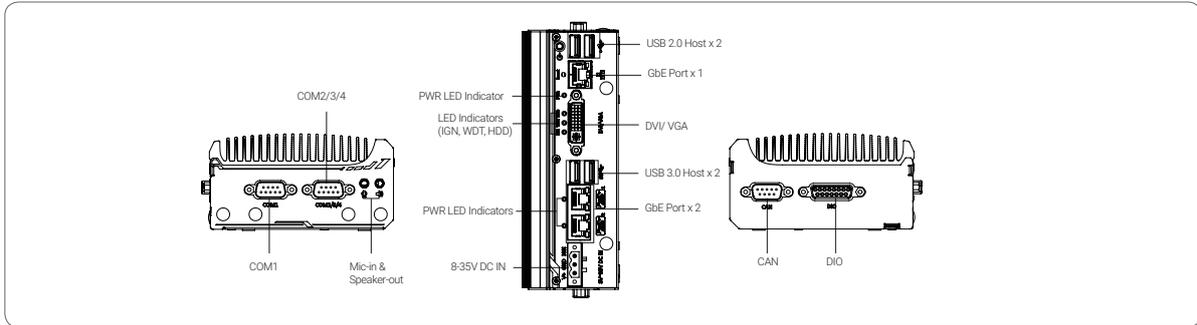
Specifications

System Core

Processor	Intel® Atom™ E3950 1.6/ 2.0 GHz quad-core processor
Graphics	Integrated Intel® HD Graphics 505
Memory	1x SODIMM socket for DDR3L-1866, up to 8GB

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 connector
USB	2x USB 3.0 ports and 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	56 mm (W) x 153 mm (H) x 108 mm (D)
Weight	1.0 kg
Mounting	Horizontal wall-mount (standard) or vertical wall-mount (optional)

Environmental

Operating Temperature	-25°C ~ 70°C with mSATA, 100% CPU loading */**
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/ SSD, according to IEC60068-2-27)
EMC	E-Mark for in-vehicle applications EN 50155/ EN 50121-3-2 CE/ FCC Class A, according to EN 55022 & EN 55024

The 100% CPU/ GPU loading for high temperature test is applied using Passmark® BurnInTest™ v8.0. For detail testing criteria, please contact Neousys Technology
** For sub-zero operating temperature, a wide temperature mSATA module is required.*

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

NEOUSYS
TECHNOLOGY

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Appearance

Dimensions

Unit : mm

153.3

108.1

56.4
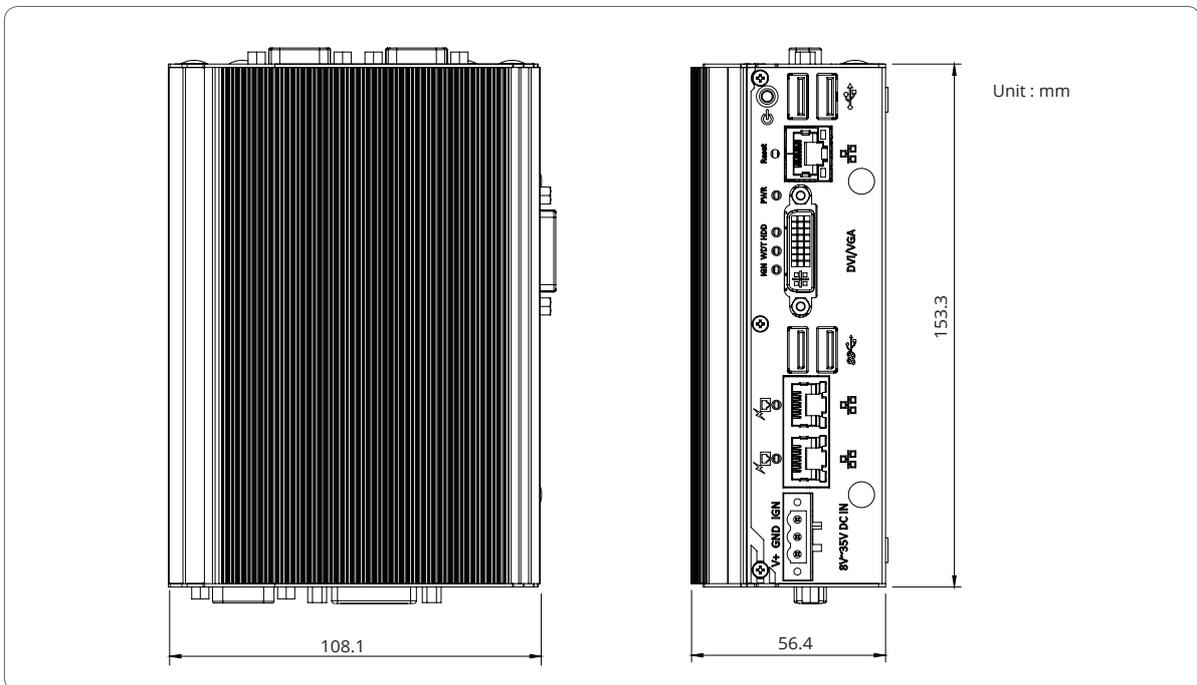
Ordering Information

Model No.	Product Description
POC-351VTC	Intel® Apollo Lake Atom™ E3950 ultra-compact in-vehicle controller with 1x GbE, 2x PoE+ and Isolated CAN

Optional Accessories

64GB mSATA mini SSD with pre-installed Windows 10 IoT English version*

128GB mSATA mini SSD with pre-installed Windows 10 IoT English version*

12V, 60W AC/ DC power adapter

Optional vertical wall-mounting bracket

For Windows 10 IoT with other language packages, MOQ is required. Please contact Neousys for further information.

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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