

POC-400 Series

Intel® Elkhart Lake Atom® x6425E Ultra-compact Fanless Embedded Controller with 2.5GbE & PoE+



CE FC

Key Features

- Intel® Elkhart Lake Atom® x6425E quad-core 1.8GHz/ 3.0GHz 12W processor
- Rugged -25 °C to 70 °C fanless operation
- 2x 2.5GbE PoE+ ports and 1x 2.5GbE port with screw-lock
- 2x USB 3.1 Gen1 and 2x USB 2.0 ports with screw-lock
- M.2 2280 M key SATA interface
- Dual DP display outputs supporting 4096 x 2160 resolution
- Front I/O access DIN-mounting design
- MeziO™ compatible

Introduction

POC-400 is an ultra-compact fanless embedded computer for industrial applications. It utilizes the latest Intel® Elkhart Lake platform Atom® x6425E 4-core CPU that can deliver 1.7x CPU and 2x GPU performance improvement, compared to the previous generation.

In addition to the performance boost, POC-400 features an ultra-compact design measuring just 56 x 108 x 153 mm, which can easily fit into restricted spaces. The system comes with a DIN-rail mounting chassis and an abundance of front-access I/O interfaces. Featuring three 2.5GBAST-T Ethernet ports with IEEE 802.3 PoE+ capability, they provide higher data bandwidth for devices such as NBAST-T cameras and is backward-compatible with 1000/100/10 Mbps Ethernet. It also has two 4K DisplayPort, 2x USB3.1 Gen1, 2x USB 2.0 and COM ports for general industrial applications.

Supporting Neosys' proprietary MeziO™ interface for function expansion, you can add functions such as isolated DIO, RS-232/422/485, ignition control and 4G/ 5G by installing a MeziO™ module. Moreover, POC-400 comes with an internal M.2 E key socket for a Google TPU or an Intel® Movidius VPU module to transform it into a lightweight AI inference platform at the edge.

Combining the new 10nm Atom® CPU, 2.5G Ethernet ports, PoE+ and ultra-compact enclosure with function expansion capabilities, Neosys' POC-400 is a compact and yet versatile embedded controller that can fuel various industrial applications.

Specifications

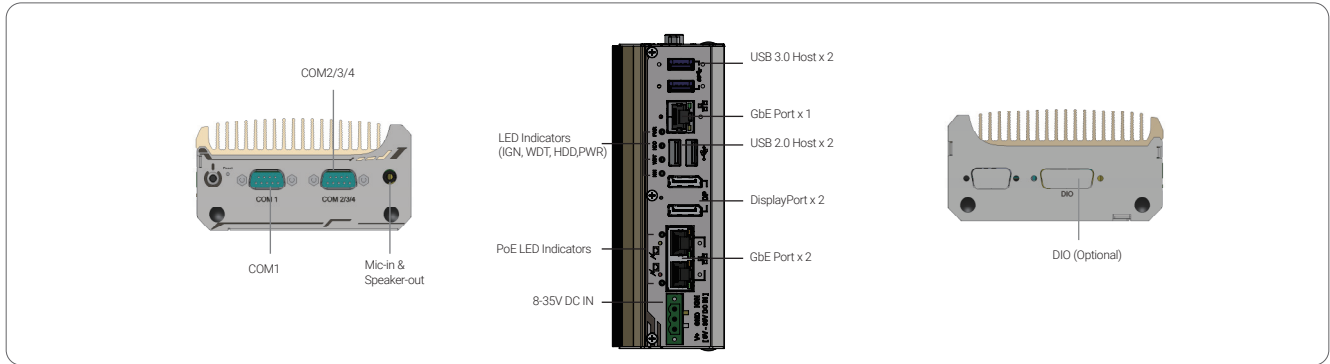
System Core	
Processor	Intel® Elkhart Lake Atom® x6425E quad-core 1.8GHz/3.0GHz 12W processor
Graphics	Integrated Intel® UHD Graphics
Memory	Up to 32 GB DDR4-3200 SDRAM by one SODIMM socket
Panel I/O Interface	
Ethernet	3x 2.5GBASE-T Ethernet ports by Intel® I225 GbE controllers
PoE	Optional IEEE 802.3at PoE+ on port #2 and #3
Video Port	2x DisplayPort connector, supporting 4096 x 2160 resolution @ 60Hz
USB 3.1	2x USB 3.1 Gen1 (5 Gbps) 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 (COM2/3/4) or 1x RS-422/485 port (COM2)
Audio	1x 3.5 mm jack for mic-in and speaker-out
Internal Expansion Bus	
M.2 E key	1x M.2 2230 E key socket for WiFi, Google TPU or Movidius VPU module
Expandable I/O	1x MeziO™ expansion port for Neosys MeziO™ modules

Storage Interface	
M.2 M key	1x M.2 2280 SATA interface
Power Supply	
DC Input	1x 3-pin pluggable terminal block for 8-35V DC input
Mechanical	
Dimension	56 mm (W) x 108 mm (D) x 153 mm (H)
Weight	0.96 kg
Mounting	DIN-rail mount (standard) or Wall-mount (optional)
Environmental	
Operating Temperature	-25°C ~ 70°C
Storage Temperature	-40°C ~ 85°C**
Humidity	10%~90% , non-condensing
Vibration	Operating, MIL-STD-810G, Method 514.7, Category 4
Shock	Operating, MIL-STD-810G, Method 516.7, Procedure I
EMC	CE/FCC Class A, according to EN 55032 & EN 55035

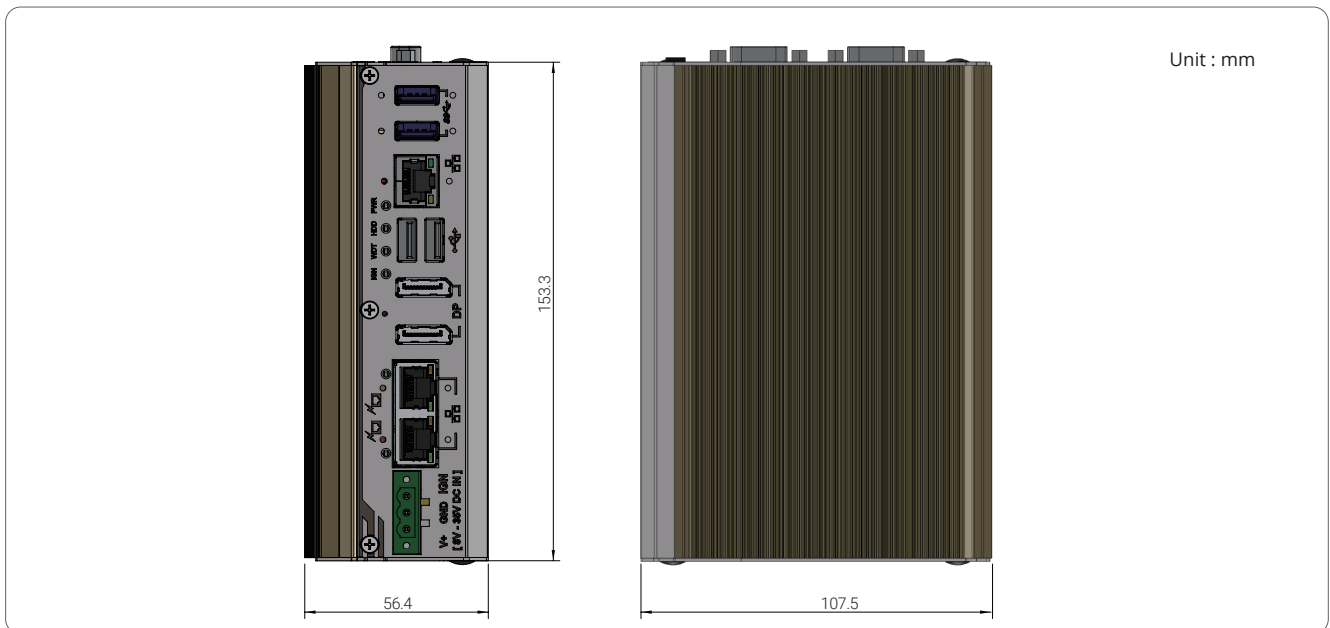
* The 100% CPU/GPU loading for high temperature test is applied using Passmark® BurnInTest™ v8.0.
For detail testing criteria, please contact Neosys Technology

** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

Appearance



Dimensions



Ordering Information

Model No.	Product Description
POC-400	Intel® Elkhart Lake Atom® x6425E ultra-compact DIN-rail fanless rugged computer with 1x 2.5GbE, 2x 2.5G PoE+ and 2x USB 3.1 Gen1
POC-410	Intel® Elkhart Lake Atom® x6425E ultra-compact DIN-rail fanless rugged computer with 3x 2.5GbE and 2x USB 3.1 Gen1

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
Wmkit-V-POC400	Wall-mount assembly for POC-400 series, vertical type
Wmkit-H-POC400	Wall-mount assembly for POC-400 series, horizontal type
Cbl-DB9F-3DB9M-15CM	1x DB9 (Female) to 3x DB9 (Male), length: 15CM

MezIO™ Modules

MezIO™ -C180	MezIO™ module with 4x RS-232/ 422/ 485 ports and 4x RS-232 ports
MezIO™ -C181	MezIO™ module with 4x RS-232/ 422/ 485 ports and 4x RS-422/ 485 ports
MezIO™ -D220	MezIO™ module with 8-CH isolated digital input and 8-CH isolated digital output
MezIO™ -D230	MezIO™ module with 16-CH isolated digital input and 16-CH isolated digital output
MezIO™ -V20	MezIO™ module with ignition power control function and 1x mini-PCIe socket for in-vehicle usage
MezIO™ -U4	MezIO™ module with 4x USB 3.1 ports
MezIO™ -R11	MezIO™ module with SATA port for 2.5" HDD/ SSD
MezIO™ -R12	MezIO™ module with SATA port for 2.5" HDD/ SSD, 4-CH isolated DI and 4-CH isolated DO
MezIO™ -V25	MezIO™ module with 16-mode ignition power control and M.2 slots for LTE/5G, WIFI and SSD (coming soon)