

# POC-400 Series

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



## Key Features

- Intel® Elkhart Lake Atom® x6425E quad-core 2.0GHz/ 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 1.8x 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 2.5GBASE-T Ethernet ports with IEEE 802.3 PoE+ capability, they provide higher data bandwidth for devices such as NBASE-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.

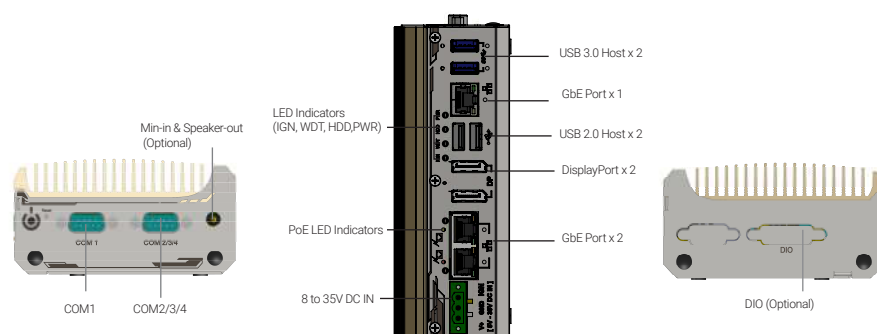
Supporting Neosys' proprietary MezIO® interface for function expansion, you can add functions such as isolated DIO, RS-232/422/485, ignition control and 4G/ 5G by installing a MezIO® module. Moreover, POC-400 comes with an internal M.2 E key socket for a Google TPU or an Intel® Movidius VPU module to 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 computer that can fuel various industrial applications.

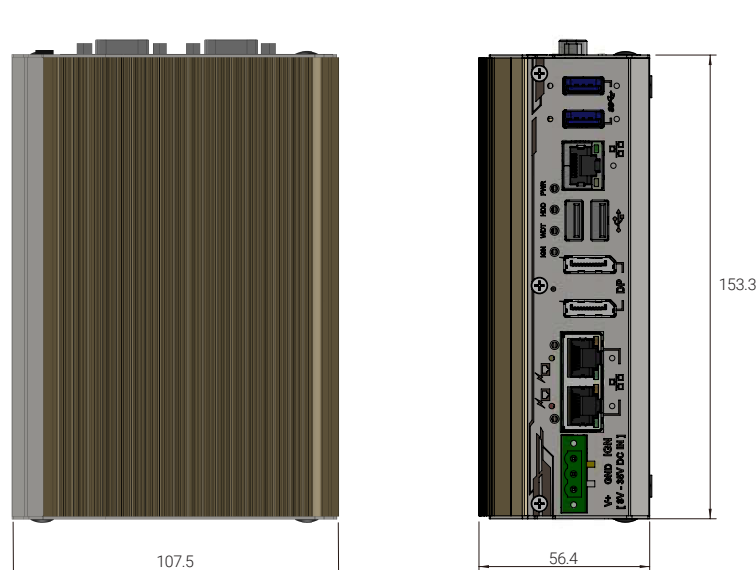
## Specifications

| System Core            |                                                                                                                        | Storage Interface                                                                                                                                                                                                                                                                                 |                                                         |
|------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Processor              | Intel® Elkhart Lake Atom® x6425E quad-core 2.0GHz/3.0GHz 12W processor                                                 | M.2 M key                                                                                                                                                                                                                                                                                         | 1x M.2 2280 SATA interface                              |
| Graphics               | Integrated Intel® UHD Graphics                                                                                         | Power Supply                                                                                                                                                                                                                                                                                      |                                                         |
| Memory                 | Up to 32 GB DDR4-3200 SDRAM by one SODIMM socket                                                                       | DC Input                                                                                                                                                                                                                                                                                          | 1x 3-pin pluggable terminal block for 8 to 35V DC input |
| TPM                    | Supports fTPM 2.0                                                                                                      | Mechanical                                                                                                                                                                                                                                                                                        |                                                         |
| Panel I/O Interface    |                                                                                                                        | Dimension                                                                                                                                                                                                                                                                                         | 56 mm (W) x 108 mm (D) x 153 mm (H)                     |
| Ethernet               | 3x 2.5GBASE-T Ethernet ports by Intel® I226-IT/ I225-IT GbE controllers                                                | Weight                                                                                                                                                                                                                                                                                            | 0.96 kg                                                 |
| PoE                    | Optional IEEE 802.3at PoE+ on port #2 and #3, 50 W total power budget                                                  | Mounting                                                                                                                                                                                                                                                                                          | DIN-rail mount (standard) or Wall-mount (optional)      |
| Video Port             | 2x DisplayPort connector, supporting 4096 x 2160 resolution @ 60Hz                                                     | Environmental                                                                                                                                                                                                                                                                                     |                                                         |
| USB 3.1                | 2x USB 3.1 Gen1 (5 Gbps) ports                                                                                         | Operating Temperature                                                                                                                                                                                                                                                                             | -25°C ~ 70°C*/**                                        |
| USB 2.0                | 2x USB 2.0 ports                                                                                                       | Storage Temperature                                                                                                                                                                                                                                                                               | -40°C ~85°C                                             |
| Serial Port            | 1x software-programmable RS-232/422/485 ports (COM1)<br>3x 3-wire RS-232 ports (COM2/3/4) or 1x RS-422/485 port (COM2) | Humidity                                                                                                                                                                                                                                                                                          | 10%~90% , non-condensing                                |
| Audio                  | 1x 3.5 mm jack for mic-in and speaker-out                                                                              | Vibration                                                                                                                                                                                                                                                                                         | Operating, MIL-STD-810G, Method 514.7, Category 4       |
| Internal Expansion Bus |                                                                                                                        | Shock                                                                                                                                                                                                                                                                                             | Operating, MIL-STD-810G, Method 516.7, Procedure I      |
| M.2 E key              | 1x M.2 2230 E key socket for WiFi, Google TPU or Movidius VPU module                                                   | EMC                                                                                                                                                                                                                                                                                               | CE/FCC Class A, according to EN 55032 & EN 55035        |
| Expandable I/O         | 1x MezIO® expansion port for Neosys MezIO® modules                                                                     | <small>* The 100% CPU/GPU loading for high temperature test is applied using Passmark® BurnInTest™ v8.0.<br/>For detail testing criteria, please contact Neosys Technology<br/>** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.</small> |                                                         |

## Appearance



## Dimensions



## Ordering Information

| Model No.      | Product Description                                                                                                              |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>POC-400</b> | 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 |
| <b>POC-410</b> | Intel® Elkhart Lake Atom® x6425E ultra-compact DIN-rail fanless rugged computer with 3x 2.5GbE and 2x USB 3.1 Gen1               |

*Optional 1x 3.5 mm jack for mic-in and speaker-out*

## Optional Accessories

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>PA-60W-OW</b>           | 60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. Operating temperature : -30 to 60 °C |
| <b>Wmkit-V-POC300</b>      | Wall mounting assembly for POC-300, POC-400, POC-40 series, vertical type                                                   |
| <b>Wmkit-H-POC300</b>      | Wall mounting assembly for POC-300, POC-400 series, horizontal type                                                         |
| <b>Cbl-DB9F-3DB9M-15CM</b> | 1x DB9 (Female) to 3x DB9 (Male), length: 15CM                                                                              |
| <b>MezIO® Modules</b>      |                                                                                                                             |
| <b>MezIO®-C180</b>         | MezIO® module with 4x RS-232/ 422/ 485 ports and 4x RS-232 ports                                                            |
| <b>MezIO®-C181</b>         | MezIO® module with 4x RS-232/ 422/ 485 ports and 4x RS-422/ 485 ports                                                       |
| <b>MezIO®-D220</b>         | MezIO® module with 8-CH isolated digital input and 8-CH isolated digital output                                             |
| <b>MezIO®-D230</b>         | MezIO® module with 16-CH isolated digital input and 16-CH isolated digital output                                           |
| <b>MezIO®-V20</b>          | MezIO® module with ignition power control function and 1x mini-PCle socket for in-vehicle usage                             |
| <b>MezIO®-U4</b>           | MezIO® module with 4x USB 3.1 ports                                                                                         |
| <b>MezIO®-R11</b>          | MezIO® module with SATA port for 2.5" HDD/ SSD                                                                              |
| <b>MezIO®-R12</b>          | MezIO® module with SATA port for 2.5" HDD/ SSD, 4-CH isolated DI and 4-CH isolated DO                                       |