

POC-400 Series

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



CE FC

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

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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.

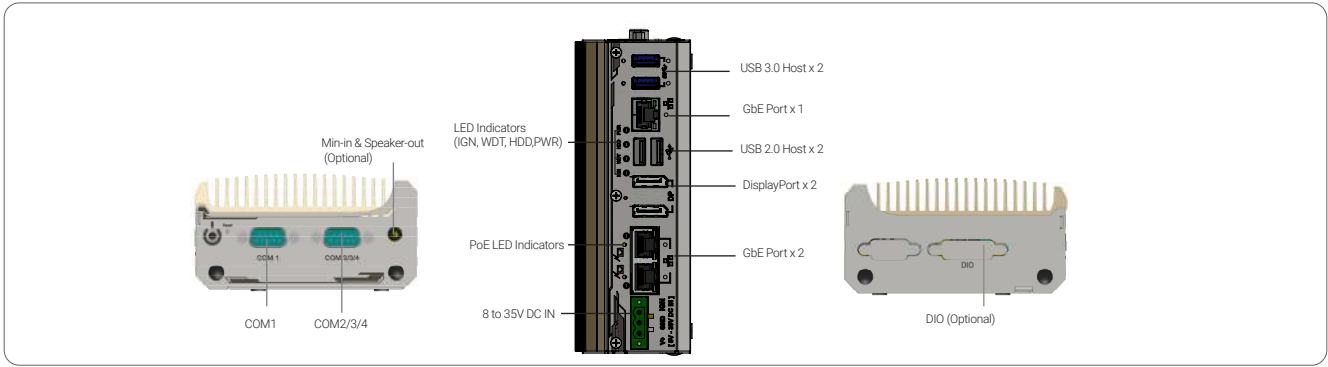
Supporting Neosys' proprietary MeziO™ interface for function expansion, you can add functions such as isolated DIO, RS-232/422/485, ignition control and 4G/ 5G by installing a MeziO™ module. Moreover, POC-400 comes with an internal M.2 E key socket for a Google TPU or an Intel® Movidius VPU module to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

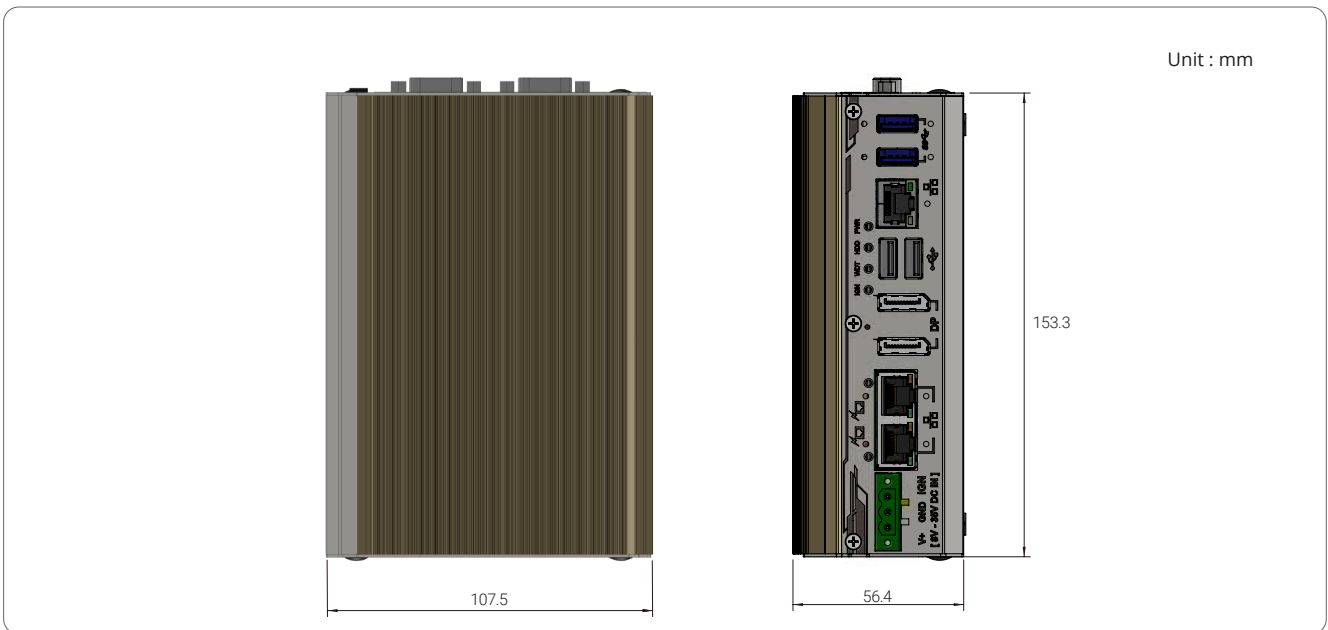
Specifications

| 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® I225 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) 3x 3-wire RS-232 ports (COM2/3/4) or 1x RS-422/485 port (COM2) | Humidity | 10%~90% , non-condensing |
| Audio | Optional 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. For detail testing criteria, please contact Neosys Technology</small> <small>** 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 |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 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 |
| <i>Optional 1x 3.5 mm jack for mic-in and speaker-out</i> | |

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 |