

POC-700 Series

Intel® Core™ i3-N305/ Atom® x7425E Ultra-compact Embedded Computer with 4x PoE+, USB 3.2, and MeziO® Interface



CE FC

Key Features

- Intel® Alder Lake Core™ i3-N305 processor 15W with 8 E-Cores or Atom® x7425E
- Up to 16GB DDR5-4800 SODIMM
- -25 °C to 70 °C rugged wide temperature operation
- 4x GbE ports PoE+ / 4x USB3.2 Gen 2 with screw-lock
- M.2 2280 M key SATA socket
- DP++ / HDMI 1.4b dual display outputs
- 4-CH isolated DI + 4-CH isolated DO
- Front I/O access DIN-mounting design
- MeziO® compatible

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Get Quote

Introduction

POC-700 is Neosys' next-generation ultra-compact embedded controller, with a choice of the latest Intel® Alder Lake i3-N305 or x7425E processor that is capable of delivering up to 1.3x the CPU performance when compared to previous POC-500 series.

Neosys POC-700 is powered by Intel's Alder Lake i3-N305 featuring 8-core/ 8-thread processor with 32EUs UHD Graphics or Atom® x7425E featuring 4-core/ 4-thread with 24EUs UHD Graphics to support Intel OpenVINO™ for AI inference capabilities. The systems adopts DDR5-4800 to offer up to 1.8x the memory bandwidth over DDR4 to boost overall system performance. It also has four USB3.2 Gen2, and four GigE PoE+ ports with screw lock mechanisms to connect and secure industrial cameras for machine vision applications. Display output wise, there are HDMI and DP video outputs to support high-definition display devices. As for connections and expansions, POC-700 features isolated DIO for device monitoring/control, M.2 2280 M key for SATA SSD and a mini-PCIe socket for wireless WiFi, LTE/5G or CAN bus device.

Measuring just 64 x 116 x 176mm, the ultra-compact POC-700 can easily fit into confined spaces and is a seamless upgrade from POC-500 series with identical footprint. Benefiting from the performance gains of the latest Intel CPU, wide-temperature fanless design, and ample interfaces for industrial cameras and I/Os, POC-700 is perfect for machine vision and smart city applications.

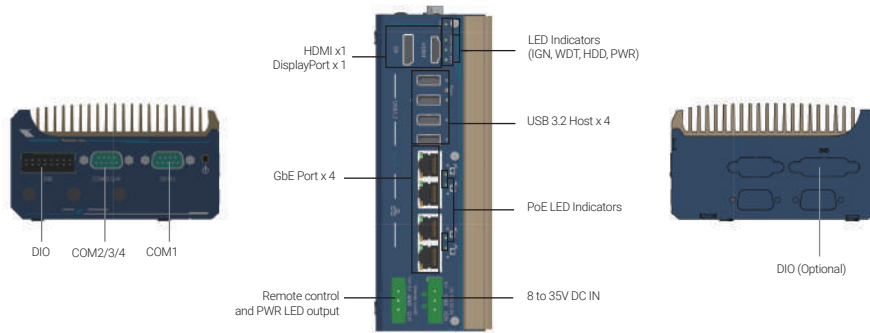
Specifications

| | POC-715 | POC-712 |
|----------------------------|--|---|
| System Core | | |
| Processor | Intel® Alder Lake Core™ i3-N305 processor (8C/8T, 1.8/3.8 GHz, 15W TDP) | Intel® Alder Lake Atom® x7425E processor (4C/4T, 1.5 /3.4 GHz, 12W TDP) |
| Graphics | Integrated Intel® UHD Graphics with 32EUs | Integrated Intel® UHD Graphics with 24EUs |
| Memory | Up to 16 GB DDR5-4800 SDRAM (one SODIMM socket) | |
| TPM | Supports TPM 2.0 (fTPM/ dTPM) | |
| Panel I/O Interface | | |
| Ethernet | 4x Gb Ethernet ports by Intel® I350-AM4 | |
| PoE+ | IEEE 802.3at PoE+ on port #1~4 | - |
| Native Video Port | 1x DP++, Supporting 4096 x 2160 resolution 1x HDMI1.4b, Supporting 3840 x 2160 30Hz | |
| 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) | |
| USB | 4x USB 3.2 Gen2 ports with screw-lock | |
| Isolated DIO | 4-CH isolated DI and 4-CH isolated DO | |
| Storage Interface | | |
| M.2 | 1x M.2 2280 M key socket (PCIe Gen3 x1) for NVMe SSD storage (supports SATA signal) | |
| Expansion Bus | | |
| Mini-PCIe | 1x full-size mini PCI Express socket with internal micro SIM socket | |
| Expandable I/O | 1x MeziO® expansion interface for Neosys MeziO® modules | |

| | POC-715 | POC-712 |
|---------------------------|--|---------|
| Power Supply | | |
| DC Input | 1x 3-pin pluggable terminal block for 8 to 35V DC input | |
| Remote Ctrl. & LED Output | 1x 3-pin pluggable terminal block for remote control and PWR LED output | |
| Mechanical | | |
| Dimension | 64 (W) x 116 (D) x 176 (H) mm | |
| Weight | 1.2 kg | |
| Mounting | DIN-rail mount (standard) or wall-mount (optional) | |
| Fan | Optional external-accessible 80mm x 80mm fan for system heat dissipation | |
| Environmental | | |
| Operating Temperature | -25°C ~ 70°C* | |
| Storage Temperature | -40°C ~ 85°C | |
| Humidity | 10%~90% , non-condensing | |
| Vibration | Operating, MIL-STD-810G, Method 514.6, Category 4 | |
| Shock | Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II | |
| Safety | EN62368-1 | |
| EMC | CE/ FCC Class A, according to EN 55032 & EN 55024 | |

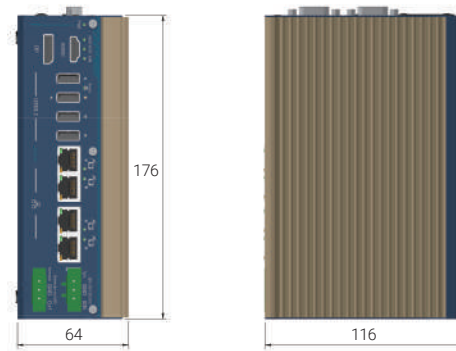
* For sub-zero and over 60°C operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

Appearance



Dimensions

Unit : mm



Ordering Information

| Model No. | Product Description |
|-----------|--|
| POC-715 | Intel® Core™ i3-N305 Ultra-Compact Embedded Computer with 4x PoE+, 4x USB 3.2 and MeziO® Interface |
| POC-712 | Intel® Atom® x7425E Ultra-Compact Embedded Computer with 4x GbE, 4x USB3.2 and MeziO® Interface |

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 70°C |
| PA-120W-OW | 120W AC/DC power adapter with 12V, 10A DC output, cord end terminals for terminal block. Operating temperature : -30 to 60°C |
| Wmkit-V-POC500 | Wall-mount assembly for POC-500 and POC-700 series, vertical type |
| Wmkit-H-POC500 | Wall-mount assembly for POC-500 and POC-700 series, horizontal type |
| Cbl-DB9F-3DB9M-15CM | 1x DB9 (Female) to 3x DB9 (Male), length: 15CM |
| AccsyBx-FAN-POC-700 | Fan assembly for POC-700 series, 80x80x15 mm |

MeziO® Modules

| | |
|----------------|---|
| MeziO®-C180-50 | MeziO® module with 4x RS-232/ 422/ 485 ports and 4x RS-232 ports |
| MeziO®-C181-50 | MeziO® module with 4x RS-232/ 422/ 485 ports and 4x RS-422/ 485 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®-V20 | MeziO® module with ignition power control function and 1x mini-PCIe socket for in-vehicle usage |
| MeziO®-U4-30 | MeziO® module with 4x USB 3.1 ports |