POC-700-FT Series

Intel® Alder Lake Ultra-Compact Embedded Controller with 4x PoE+, 4 USB 3.2, MezIO® Interface and flattop heatsink

Key Features

- **Intel® Alder Lake Core™ i3-N305 processor 15W with 8 E-Cores or Atom® x7425E**
- **Up to 16GB DDR5-4800 SODIMM**
- **Flattop heatsink design**
- **-25 °C to 60 °C rugged wide temperature fanless operation**
- **4x GbE ports PoE+ / 4x USB3.2 Gen 2 with screw-lock**
- **4-CH isolated DI + 4-CH isolated DO**
- **DP++ / HDMI™ 1.4b dual display outputs**
- **MezIO® compatible**

CONTACT US GET QUOTE

Introduction

The POC-700-FT is a variant of Neousys' acclaimed POC-700 series, featuring a unique flattop heatsink design that allows it to be applied to other categories of applications. The large thermal conduction area of the flattop heatsink helps effectively transfer heat to the outer surface and makes POC-700-FT particularly applicable for installation inside a sealed enclosure, where airflow is limited.

The POC-700-FT series is equipped with a Intel® Core™ i3-N305 8-core/ 8-thread processor, along with 32EUs UHD Graphics, or an Atom® x7425E 4-core/ 4-thread processor, with 24EUs UHD Graphics. Both options are optimized for AI inference tasks via Intel OpenVINO™. The system supports DDR5-4800 memory and includes an M.2 2280 M key NVMe slot for fast disk access. It also has four USB 3.2 Gen2 ports and four GigE PoE+ ports with screw-lock mechanisms, ensuring reliable connections for Ethernet/ USB cameras. POC-700-FT also offers COM ports and isolated DIO for monitoring and controlling devices, as well as a mini-PCIe slot that accommodates wireless modules such as WiFi, LTE/5G, or CAN bus devices.

The flattop heatsink not only facilitates in-cabinet thermal dissipation, but also reduces the overall size of the machine by 20% for confined spaces. It offers a great solution for customers who want fanless yet efficient thermal conduction when placing the machine in a cabinet. Combining multiple Ethernets and rich I/O functions, POC-700-FT fits for deployed in challenging environments, such as oil/ gas, mining, those requiring dust and water resistance.

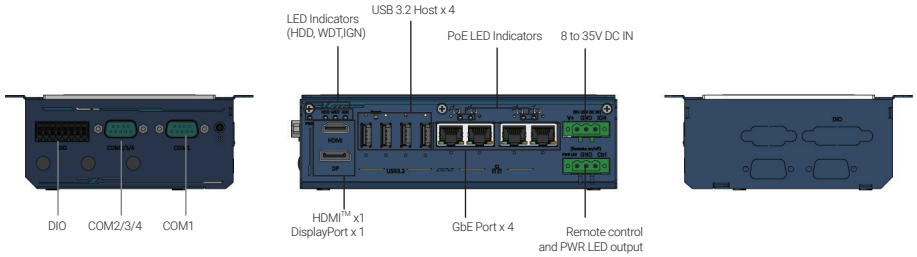
Specifications

	POC-715-FT	POC-712-FT
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 dTPM 2.0	
Panel I/O Interface		
Ethernet	4x Gb Ethernet ports by Intel® I350-AM4	
PoE+	IEEE 802.3at PoE+ on port #1 to 4	-
Native Video Port	1x DP++, Supporting 4096 x 2160 resolution 1x HDMI™ 1.4b, 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 Neousys MezIO® modules	

	POC-715-FT	POC-712-FT
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	175.8mm (W) x 115.5mm (D) x 51.65mm (H)	
Weight	1.2 kg	
Mounting	Wall-mount (Standard)	
Environmental		
Operating Temperature	-25°C to 60°C [1][2]	
Storage Temperature	-40°C to 85°C	
Humidity	10% to 90% , non-condensing	
Vibration	MIL-STD-810H, Method 514.8, Category 4	
Shock	MIL-STD-810H, Method 516.8, Procedure I	
EMC	CE/ FCC Class A, according to EN 55032 & EN 55035	

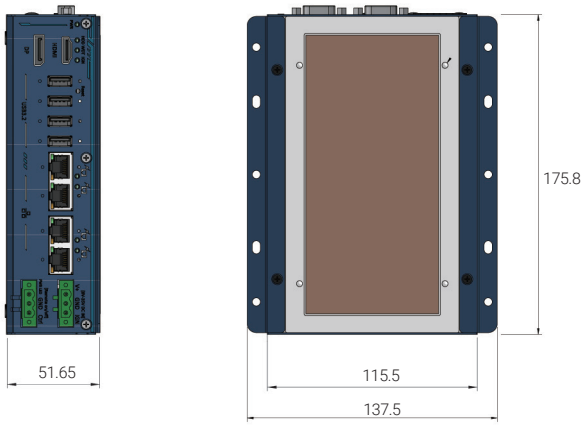
[1] For sub-zero operating temperature, a wide temperature storage is required.
[2] The system was tested while mounted on an aluminum panel measuring 60(W) x 60(D) x 0.3(H) cm in a high temperature environment to simulate in-cabinet conditions. For more information, please refer to the user manual.

Appearance



Dimensions

Unit : mm



Ordering Information

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

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 20V, 6A DC output, cord end terminals for terminal block. Operating temperature : -30 to 70°C
PA-160W-OW	160W AC/DC power adapter 20V/ 8A; 18AWGx4C/ 120cm, cord end terminals for terminal block, operating temperature : -30°C to 70 °C
Cbl-DB9F-3DB9M-15CM	1x DB9 (Female) to 3x DB9 (Male), length: 15CM
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