POC-120 Series

Ultra-compact Atom™ Bay Trail-I Fanless General-Purpose Embedded Controller

POC-120

POC-120MZ

CE FC

⬤ *Key Features*

· **Low-profile, ultra-compact 15 cm x 10 cm x 3.4 cm footprint**
· **Intel® Atom™ E3826 1.46GHz dual-core processor**
· **Rugged, -25°C to 70°C fanless operation**
· **Two GigE ports and three USB2.0 ports**
· **One RS-232/ 422/ 485 port and one RS-232 port**
· **I/O expansion interface for ODM projects**
· **MezIO™ interface for easy function expansion**

Introduction

Introducing Neousys' ultra-compact POC family! POC-120 is a low-cost, entry-level embedded controller in ultra-compact dimensions. With a height of 3.4 cm, the low-profile chassis is ideal for installation into confined spaces.

POC-120 utilizes Intel® Atom™ E3826 dual-core processor and it provides general I/Os, such as GigE ports, COM ports and USB3.0/ USB2.0 ports. For embedded applications, instead using traditional HDD, POC-120 supports mSATA SSD to ensure reliable disk access in harsh industrial environments. POC-120MZ also features Neousys' MezIO™ interface for I/O expansion. By customizing a mezzanine board, you can have versatile I/O functions and turn POC-120MZ from an ultra-compact controller into a tailor-made ultra-compact embedded system for your application needs.
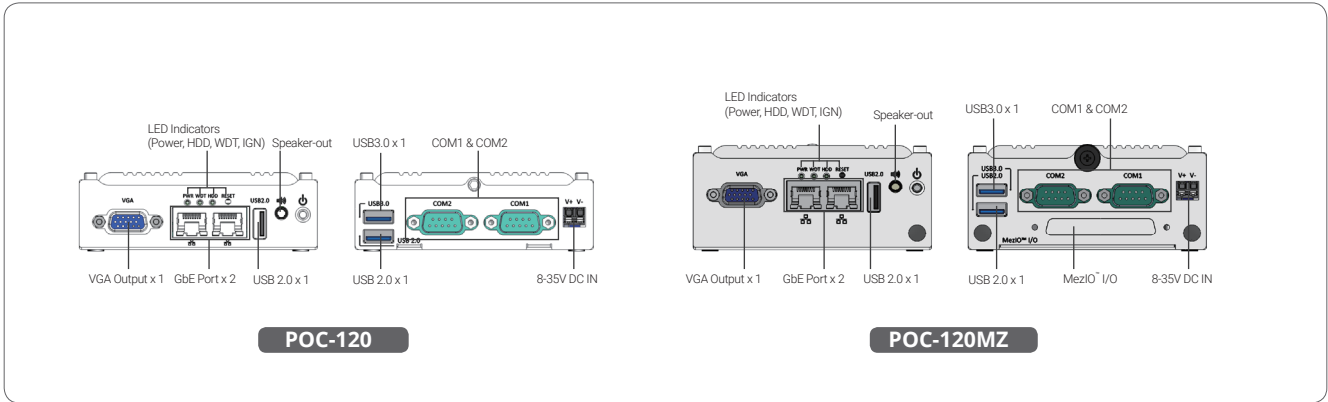
Specifications

System Core	
Processor	Intel® Atom™ E3826 1.46 GHz dual-core processor
Graphics	Integrated Intel® HD Graphics
Memory	Up to 8GB DDR3L-1333 (single SO-DIMM slot)

I/O Interface	
Ethernet	2x Gigabit Ethernet ports by Intel® I210 GbE controller
Video Port	1x VGA connector for both analog RGB output, supporting 2560x1600 resolution
Serial Port	1x RS-232/ 422/ 485 (COM1) 1x RS-232 (COM2)
USB	1x USB3.0 port and 2x USB2.0 ports
Audio	1x Speaker-out

Storage Interface	
mSATA	1x full-size mSATA socket

Expansion Bus	
Expandable I/O (POC-120MZ only)	1x MezIO™ expansion port for Neousys' MezIO™ modules

Power Supply	
DC Input	Built-in 8~35V DC input
Input Connector	2-pin spring-clamp terminal block for DC input

Mechanical	
Dimension	105mm (W) x 149 mm (D) x 34mm (H) (POC-120) 105mm (W) x 149 mm (D) x 46mm (H) (POC-120MZ)
Weight	0.9 kg
Mounting	Wall-mounting (standard) or DIN-rail mounting (optional)

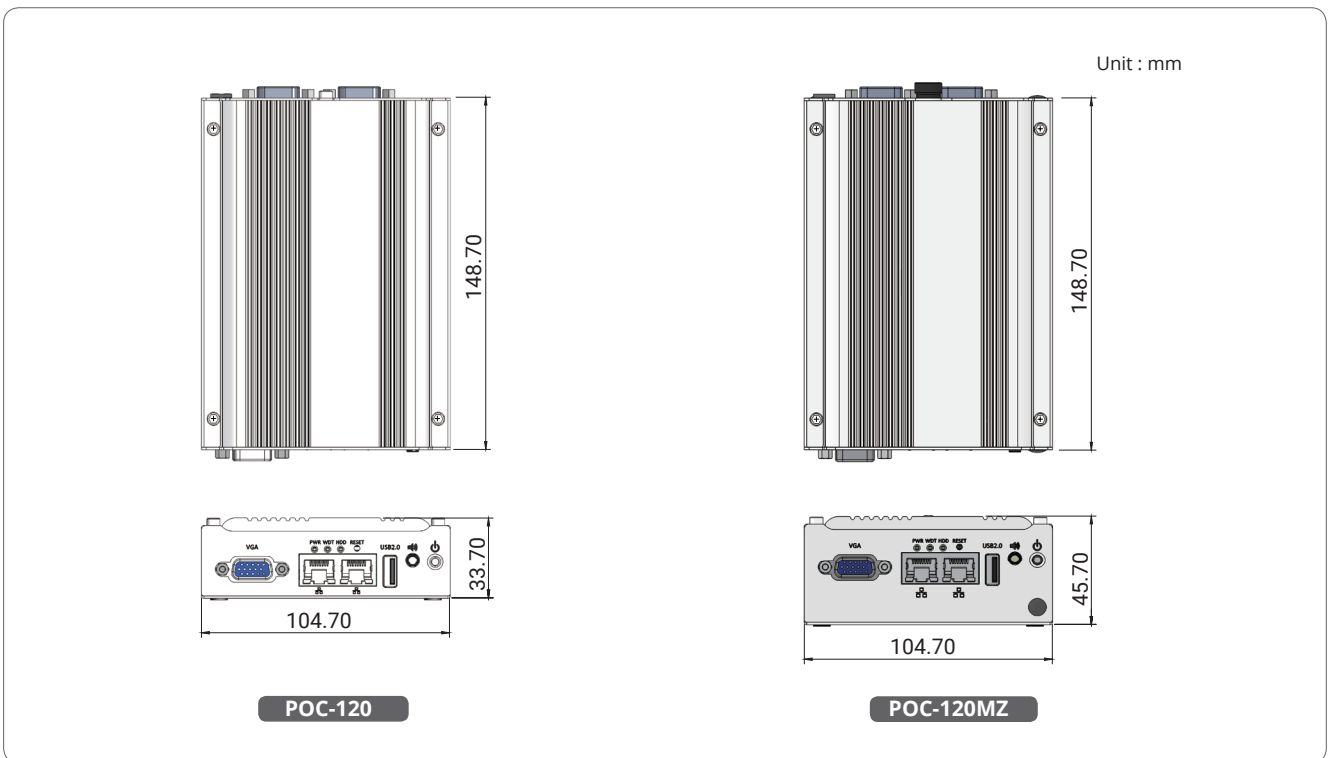| Environmental	
Operating Temperature	-25°C ~ 70°C with SSD, 100% CPU loading */**
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
EMC	CE/ FCC Class A, according to EN 55022 & EN 55024

* 100% CPU loading is applied using Intel® Thermal Analysis Tool. For detail testing criteria, please contact Neousys Technology.
** For sub-zero operating temperature, a wide temperature mSATA SSD module is required.

NEOUSYS
TECHNOLOGY

Appearance

POC-120

LED Indicators (Power, HDD, WDT, IGN) Speaker-out USB3.0 x 1 COM1 & COM2
USB2.0
VGA Output x 1 GbE Port x 2 USB 2.0 x 1 USB 2.0 x 1 8-35V DC IN

POC-120MZ

LED Indicators (Power, HDD, WDT, IGN) Speaker-out USB3.0 x 1 COM1 & COM2
VGA Output x 1 GbE Port x 2 USB 2.0 x 1 USB 2.0 x 1 MezIO™ I/O 8-35V DC IN

Dimensions

Unit : mm

POC-120 — 148.70 / 33.70 / 104.70

POC-120MZ — 148.70 / 45.70 / 104.70

Ordering Information

Model No.	Product Description
POC-120	Intel® Atom™ E3826 ultra-compact controller with 2x GbE ports, 3x USB and 2x COM ports
POC-120MZ	Intel® Atom™ E3826 ultra-compact controller with 2x GbE ports, 3x USB, 2x COM ports and MezIO™ accommodation

Optional Accessories

DINRAIL-P	DIN-rail mounting assembly for POC-120 series
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

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™-R10	MezIO™ module with 2.5" HDD/ SSD accommodation and 1x mini-PCIe socket