

# Ultra-compact Fanless Computer POC Series

Compact | Wide Temperature | Support Multiple Expansion Modules

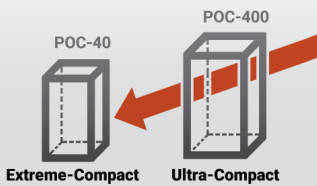


# Product Introduction

## Ultra-compact Fanless Embedded Computer

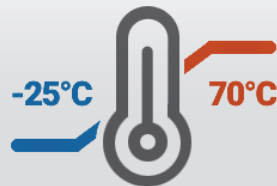
Operating in confined spaces with poor ventilation is a tough task even for embedded computers. The Neusys Technology POC series ultra-compact embedded computers are specifically designed for this purpose. POC series are fanless, features extreme-compact dimensions (52x 89x 112mm), can function under wide temperature conditions (-25 to 70°C) and accepts 8 to 35V wide range DC input. It also comes with various flexible interface connections making it suitable for a variety of industrial applications that require installation into ideal confined spaces!

## Product Highlights



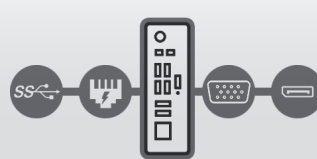
### Compact dimension

Ultra-compact dimensions, the smallest POC measures just 49x 89x 112mm.



### Wide Temperature

Patented Neusys thermal dissipation design offers true wide temperature operation from -25°C to 70°C.



### Rich I/O Ports

Comes with various I/O connections such as USB3.1, COM, PoE+, GbE and video ports.



### Expansion Module

Incorporating Neusys patented MeziO™ interface, users can expand via MeziO™ modules for additional isolated digital I/O, GbE, USB, COM, ignition control or SATA port for 2.5" HDD/SSD.

## Product Applications



Factory Automation



Autonomous Mobile Robot (AMR)



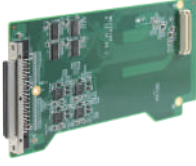
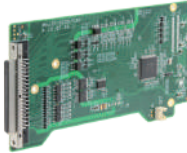
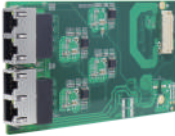
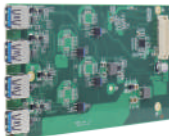
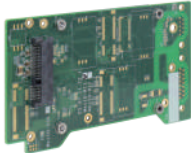
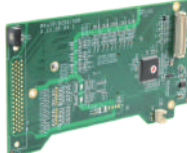
Vision Inspection



Edge Gateway


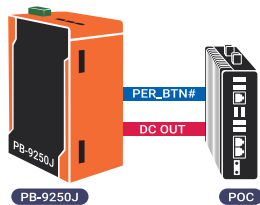
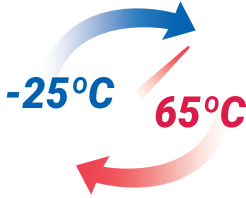
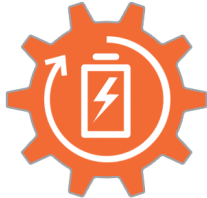
## Expansion Module-MezIO™ Module

Neusys MezIO™ interface offers computer signals, power rails and control signals via a high-speed connector. The MezIO™ module transforms Neusys embedded systems into application-specific systems with application-oriented I/Os. Mechanical and structure wise, MezIO™ benefits from 3-point mounted mezzanine structure for extra reliability in implementing comprehensive I/O functions.

	<b>MezIO™-C180/181</b> 8-port RS-232/422/485		<b>MezIO™-D230/ D220</b> 32/16-CH Isolated Digital I/O
	<b>MezIO™-G4</b> 4x GigE Ports by 4x Intel® I210 Controllers		<b>MezIO™-U4-30</b> 4 x USB 3.1 Gen 1 Ports
	<b>MezIO™-R11/R12</b> SATA Port for 2.5" HDD/SSD, 4-CH Isolated DI and 4-CH Isolated DO		<b>MezIO™-V20</b> 16-mode Ignition Power Control

## Expansion Module: Supercapacitor-based Power Backup Module

Neusys supercapacitor power backup module addresses issues faced by the traditional UPS. It can operate in wide temperature range up to 65°C. Also the inclusion of the patented CAP Energy Management Technology can maximize the utilization of the supercapacitors and power consumption via real-time monitoring to initiate a proper shutdown, ensuring data integrity in the process.

			
<b>SuperCAP Lifespan Configuration</b> In addition to the 10 years or 500,000 charge-discharge cycles, users can also extend the lifespan of supercapacitors up to 4.8x via its parameter configuration utility.	<b>Versatile Operating Mode</b> Depending on the environment you wish to deploy in, there are three modes to choose from and can be set accordingly: normal, ignition control, ignition relay.	<b>Rugged Wide-temp Operation</b> Neusys' supercapacitor power backup module supports -25 to 65°C wide temperature operation which is ideal for harsh industrial environmental conditions.	<b>Patented CAP Energy Management</b> Patented CAP energy management technology that monitors real-time power consumption to ensure proper shutdown during unforeseen power outages.

## Supercapacitor-based Power Backup Modules

**[Standalone] PB-9250J-SA**

9250 w.s Standalone Intelligent Supercapacitor-based Uninterruptible Power Backup Module

**[Standalone] PB-4600J-SA**

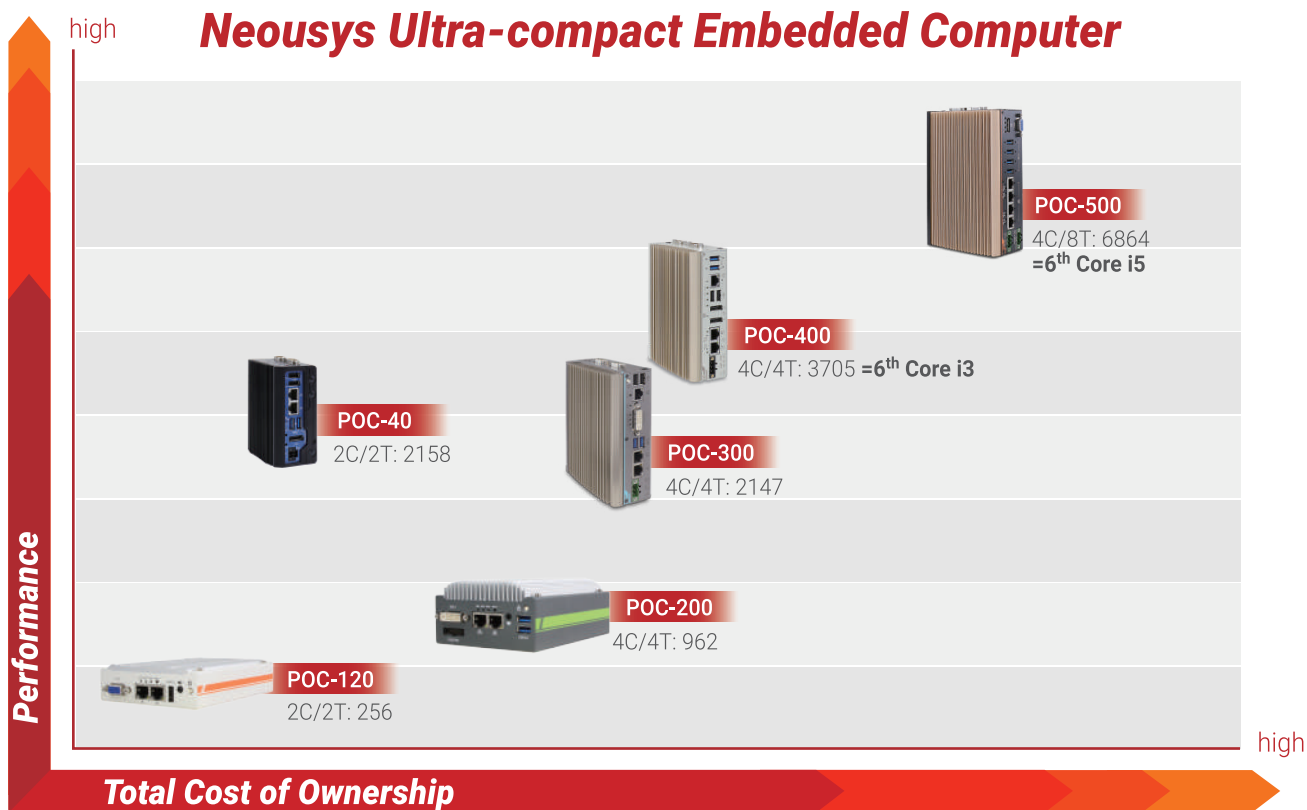
4600 w.s Standalone Intelligent Supercapacitor-based Uninterruptible Power Backup Module

**[Standalone] PB-2580J-SA**

2500 w.s Standalone Intelligent Supercapacitor-based Uninterruptible Power Backup Module



# Product Position



## POC-500

- AMD Ryzen™ embedded V1605B/ V1807B series quad-core 15W/ 45W CPU
- -25 °C to 70 °C rugged wide-temperature operation
- Four Gigabit PoE+ ports with screw-lock
- Four USB 3.1 Gen1 ports with screw-lock
- M.2 2280 M key NVMe (Gen3 x2) socket for fast storage access
- DP + VGA dual display outputs
- Front I/O access and DIN-rail mounting design
- MezIO™ compatible



## POC-400

- 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



## POC-300

- Intel® Apollo Lake Pentium® N4200 and Atom® E3950 quad-core processor
- Fanless and rugged, wide temperature operation (-25 °C to 70 °C)
- One GbE port and two Gigabit PoE+ ports
- Two USB 3.1 Gen1 and two USB 2.0 ports
- DVI + VGA dual display outputs
- Front I/O access DIN-mounting design
- MezIO™ compatible



## POC-40

- Intel® Elkhart Lake Atom® x6211E dual-core 1.3GHz/ 3.0GHz 6W processor
- 52 x 89 x 112 mm extremely compact form factor
- Rugged -25°C to 70°C fanless wide-temperature operation
- Two GigE ports, two USB 3.1 Gen1 ports and two USB2.0 ports
- M.2 2280 M key SATA storage interface
- One M.2 B key 3042/ 3052 socket supporting 5G/ 4G modules
- One M.2 E key socket for WiFi 5/ WiFi 6 modules
- One COM port with RS-232/ 422/ 485 modes and three RS-232 COM ports

# Selection Guide



Model Name	POC-500	POC-400	POC-300	POC-40	
Chassis	<b>Dimensions (W x D x H)</b>	64x 116x 176 mm(POC-515) 82x 118x 176 mm (POC-545)	56x 108x 153 mm	56x 108x 153 mm	52x 89x 112 mm
	<b>Weight</b>	1.2 kg (POC-515) 1.4kg (POC-545)	0.96 kg	0.96 kg	0.6 kg
	<b>Chassis Construction</b>	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
System	<b>Processor</b>	AMD Ryzen V1605B (POC-515) AMD Ryzen V1807B (POC-545)	Intel® Elkhart Lake Atom® x6425E quad-core	Intel® Atom® E3950 quad-core Intel® Pentium N4200 quad-core	Intel® Elkhart Lake Atom® x6211E dual-core
	<b>Graphics</b>	Vega GPU with 8 compute units (POC-515) Vega GPU with 11 compute units (POC-545)	Intel® UHD Graphics	Intel® HD Graphics 505	Intel® UHD Graphics
	<b>Memory</b>	Up to 32GB DDR4-2400 (POC-515) Up to 32GB DDR4-3200 (POC-545)	Up to 32GB DDR4-3200	Up to 8GB DDR3L-1866	Up to 32GB DDR4-3200
I/O Interface	<b>PoE</b>	IEEE 802.3at (25.5W) for 4x GbE ports	Optional (Port 2~3, IEEE 802.3at, 25.5W)	Optional (Port 2~3, IEEE 802.3at, 25.5W)	-
	<b>Ethernet</b>	4x GbE by Intel® I350	3x 2.5GbE by Intel® I225	3x GbE by Intel® I210	2x GbE by Intel® I210
	<b>Video Port</b>	1x VGA 1x DisplayPort	2x DisplayPort	1x DVI-I	1x DisplayPort
	<b>Serial Port</b>	1x RS-232/422/485 3x 3-wire RS-232	1x RS-232/422/485 3x 3-wire RS-232	1x RS-232/422/485 3x 3-wire RS-232	1x RS-232/422/485 3x 3-wire RS-232
	<b>USB 2.0</b>	-	2	2	2
	<b>USB 3.1 Gen 1</b>	4	2	2	2
	<b>Audio</b>	1x Mic-in and speaker-out	Optional 1x Mic-in and speaker-out	1x Mic-in and speaker-out	-
	<b>Digital I/O</b>	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	Optional 4 DI + 4 DO
	<b>SATA HDD</b>	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	-
Storage Interface	<b>mSATA</b>	-	-	1	-
	<b>M.2 (M-key)</b>	1	1	-	1
	<b>Mini PCI-E</b>	1	-	1	-
Expansion Bus	<b>M.2 (B-key/E-key)</b>	-	1x M.2 2230 E-key	-	1x M.2 3042/3052 B-key 1x M.2 2230 E-key
	<b>SIM</b>	1	-	1	1
	<b>MezIO™</b>	Yes	Yes	Yes	-
Power Supply	<b>DC Input</b>	8-35V DC	8-35V DC	8-35V DC	12-20V DC
	<b>Ignition Control</b>	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	(Optional)
Environmental	<b>Operating Temperature</b>	-25°C ~ 70°C	-25°C ~ 70°C	-25°C ~ 70°C	-25°C ~ 70°C
	<b>Certification</b>	CE/ FCC	CE/ FCC	CE/ FCC	CE/ FCC



## Worldwide Office

### Neosys Technology Taipei Headquarter

15F., No.868-3, Zhongzheng Rd.,  
Zhonghe Dist., New Taipei City, 23586, Taiwan  
Tel: +886-2-22236182 Fax: +886-2-22236183  
E-mail: [sales@neosys-tech.com](mailto:sales@neosys-tech.com)

### Neosys Technology America, Inc.

3384 Commercial Avenue, Northbrook,  
IL 60062, USA  
Tel: +1-847-656-3298  
E-mail: [sales@neosys-tech.com](mailto:sales@neosys-tech.com)

### Neosys Technology China Co., Ltd.

Room 431, Building 33, Guiping Road 680,  
Shanghai, 200233, China  
Tel: +86-2161155366  
E-mail: [sales.cn@neosys-tech.com](mailto:sales.cn@neosys-tech.com)

