NEOUSYS TECHNOLOGY

Ultra-compact Fanless Computer
POC Series

Compact | Wide Temperature | Support Multiple Expansion Modules

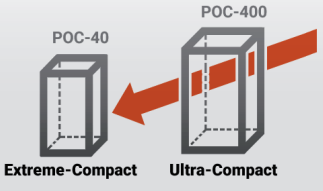
www.neousys-tech.com

Product Introduction

Ultra-compact Fanless Embedded Computer

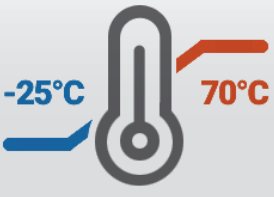
Operating in confined spaces with poor ventilation is a tough task even for embedded computers. The Neousys Technology POC series ultra-compact embedded computers are specifically designed for this purpose. POC series are fanless, features extreme-compact dimensions (52x 89x 112mm), can function under 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



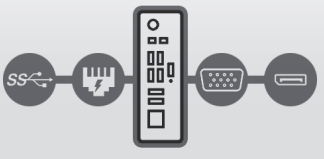
Compact dimension

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



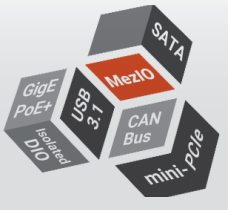
Wide Temperature

Patented Neousys 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 Neousys 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

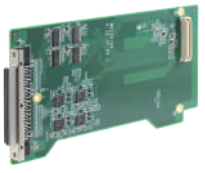
Autonomous Mobile Robot (AMR)

Vision Inspection

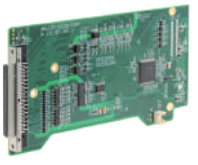
Edge Gateway

Expansion Module-MezIO™ Module

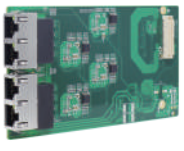
Neousys MezIO™ interface offers computer signals, power rails and control signals via a high-speed connector. The MezIO™ module transforms Neousys embedded systems into application-specific systems with application-oriented I/Os. Mechanical and structure wise, MezIO™ benefits from 3-point mounted mezzanine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



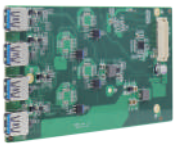
MezIO™-C180/181
8-port RS-232/422/485



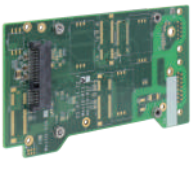
MezIO™-D230/ D220
32/16-CH Isolated Digital I/O



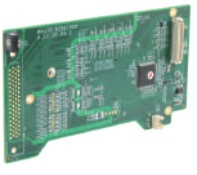
MezIO™-G4
4x GigE Ports by
4x Intel® I210 Controllers



MezIO™-U4-30
4 x USB 3.1 Gen 1 Ports



MezIO™-R11/R12
SATA Port for 2.5" HDD/SSD, 4-CH
Isolated DI and 4-CH Isolated DO



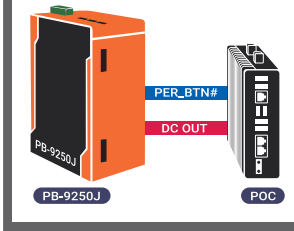
MezIO™-V20
16-mode Ignition Power Control

Expansion Module: Supercapacitor-based Power Backup Module

Neousys 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.

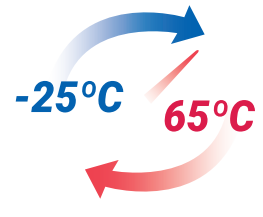
SuperCAP Lifespan Configuration

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.



Versatile Operating Mode

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.



Rugged Wide-temp Operation

Neousys' supercapacitor power backup module supports -25 to 65°C wide temperature operation which is ideal for harsh industrial environmental conditions.

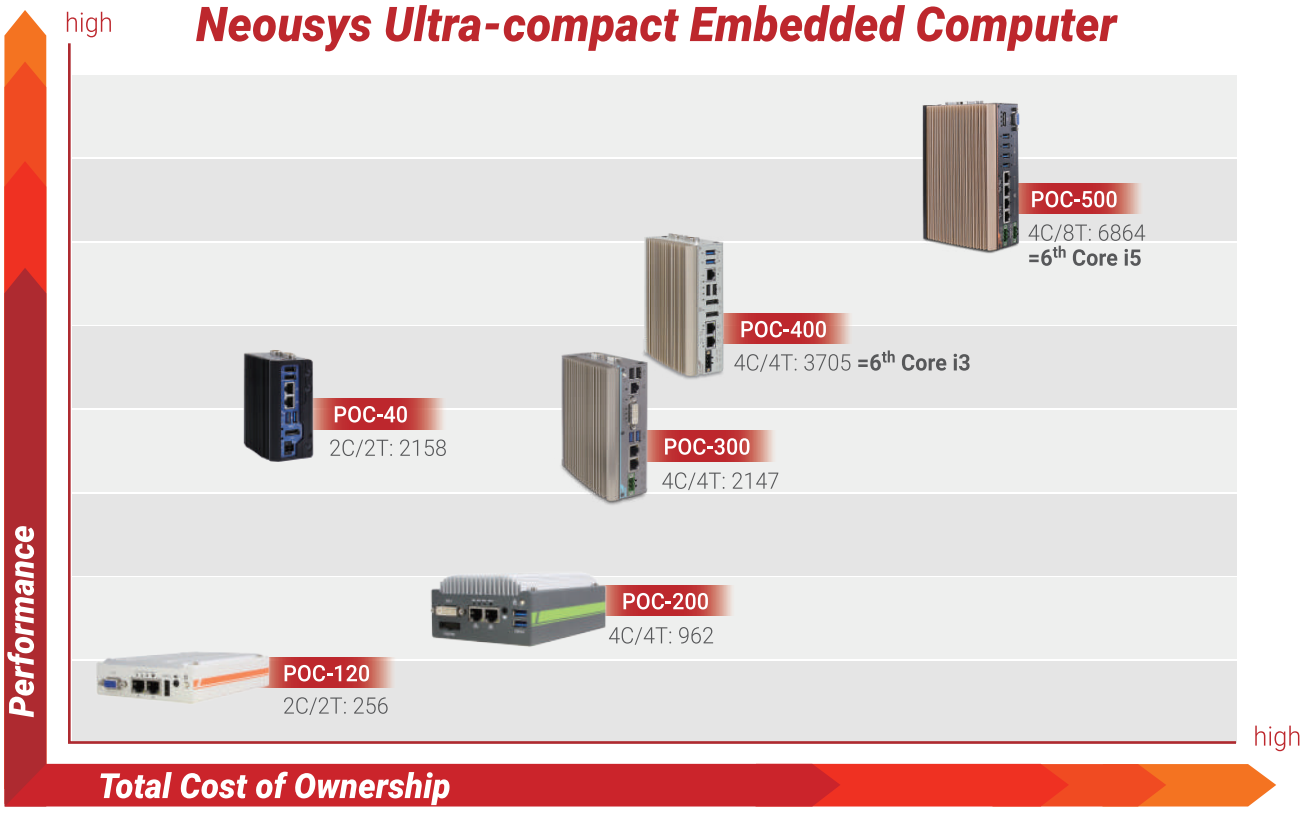
Patented CAP Energy Management

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	Dimensions (W x D x H)	64x 116x 176 mm(POC-515) 82x 118x 176 mm (POC-545)	56x 108x 153 mm	56x 108x 153 mm	52x 89x 112 mm
	Weight	1.2 kg (POC-515) 1.4kg (POC-545)	0.96 kg	0.96 kg	0.6 kg
	Chassis Construction	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	Processor	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
	Graphics	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
	Memory	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	PoE	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)	-
	Ethernet	4x GbE by Intel® I350	3x 2.5GbE by Intel® I225	3x GbE by Intel® I210	2x GbE by Intel® I210
	Video Port	1x VGA 1x DisplayPort	2x DisplayPort	1x DVI-I	1x DisplayPort
	Serial Port	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
	USB 2.0	-	2	2	2
	USB 3.1 Gen 1	4	2	2	2
	Audio	1x Mic-in and speaker-out	Optional 1x Mic-in and speaker-out	1x Mic-in and speaker-out	-
	Digital I/O	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	Optional 4 DI + 4 DO
Storage Interface	SATA HDD	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	-
	mSATA	-	-	1	-
	M.2 (M-key)	1	1	-	1
Expansion Bus	Mini PCI-E	1	-	1	-
	M.2 (B-key/E-key)	-	1x M.2 2230 E-key	-	1x M.2 3042/3052 B-key 1x M.2 2230 E-key
	SIM	1	-	1	1
	MezIO™	Yes	Yes	Yes	-
Power Supply	DC Input	8-35V DC	8-35V DC	8-35V DC	12-20V DC
	Ignition Control	Optional via MezIO™ module	Optional via MezIO™ module	Optional via MezIO™ module	(Optional)
Environmental	Operating Temperature	-25°C ~ 70°C	-25°C ~ 70°C	-25°C ~ 70°C	-25°C ~ 70°C
	Certification	CE/ FCC	CE/ FCC	CE/ FCC	CE/ FCC

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