

# POC-900 Series

AMD® Ryzen™ PRO 8640U Ultra-compact Embedded Computer with 4x PoE+, 4x USB 3.2 and MezIO® Interface



## Key Features

- AMD® Ryzen™ PRO 8640U processor 15W-30W TDP with 6C/ 12T
- 16 TOPs NPU with Ryzen™ AI, 31 TOPs for total SoC
- Up to 32 GB ECC/ non-ECC DDR5 5600 SDRAM
- 4x PoE+ GbE & 4x USB 3.2 Gen 2 with screw-lock
- Dual HDMI™ 2.0b display output, Supporting 3840 x 2160 at 60Hz
- Front I/O access and DIN-rail mounting design
- -25°C to 70°C wide temperature operation
- MezIO® interface for easy function expansion

## Introduction

The POC-900 series is the latest addition to Neosys' compact POC family, powered by the AMD® Ryzen™ embedded 8000 series platform. By retaining the same footprint, dimensions and DIN-rail mounting design as the current POC-700 and POC-500 series, the POC-900 ensures compatibility with existing installations while offering significant performance and connectivity upgrades.

Featuring the AMD® Ryzen™ PRO 8640U processor, the POC-900 offers up to 270% performance improvement over POC-500 platforms. In addition, its storage and memory have been enhanced, with support for M2 Gen 4x4 NVMe SSD and DDR5-5600 memory, they enable faster data access and improved system responsiveness for demanding edge AI and industrial applications.

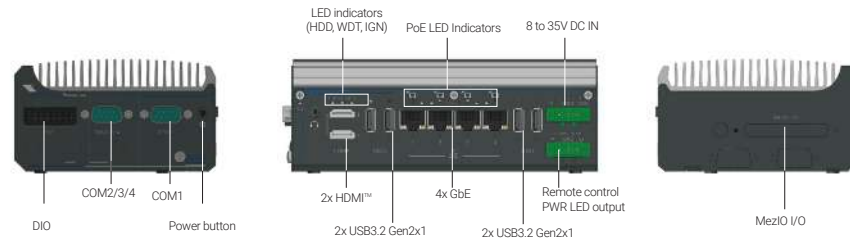
The POC-900 provides four Gigabit Ethernet ports with PoE+, four USB 3.2 ports, and four digital inputs and outputs (DI/ DO) for connectivity with cameras, sensors, and control systems. In addition, it supports Neosys' MezIO® interface, allowing flexible I/O expansion to meet specific application requirements. Combining next-generation AMD® performance with compact, rugged reliability, the POC-900 is engineered to deliver exceptional computing power and versatility for industrial automation, edge AI, and machine vision deployments.

## Specifications

| System Core       |  |
|-------------------|--|
| Processor         | AMD® Ryzen™ PRO 8640U CPU (6C/ 12T, 3.5/ 4.9 GHz, 15W-30W TDP)   |
| Graphics          | AMD® Radeon RDNA3 Graphics   |
| Memory            | Up to 32 GB DDR5-5600 SDRAM (one SODIMM socket)  |
| TPM               | Supports dTPM 2.0  |
| I/O Interface     |  |
| Ethernet          | 4x Gb Ethernet ports by Intel® I350-AM4 (with WoL)   |
| PoE+              | IEEE 802.3at PoE+ on port #1 ~ 4<br>- 32W power budget (with UL certified)<br>- 100W power budget (maximum)            |
| USB               | 4x USB 3.2 Gen2x1 (10 Gbps) ports in type-A connectors with screw-lock   |
| Video Port        | 2x HDMI2.0b, Supporting 3840 x 2160 at 60Hz  |
| Serial Port       | 1x Software-programmable RS-232/422/485 ports (COM1)<br>3x 3-wire RS-232 ports (COM2/3/4) or 1x RS-422/485 port (COM2) |
| Isolated DIO      | 4-CH isolated DI and 4-CH isolated DO  |
| Audio             | 1x 3.5 mm jack for mic-in and speaker-out  |
| Storage Interface |  |
| SATA HDD          | -  |
| M.2 NVMe          | 1x M.2 2280 M key socket (PCIe Gen4 x4) for NVMe SSD   |
| Expansion Bus     |  |
| Mini PCI-E        | 1x full-size mini PCI Express socket (PCIe + USB2) with internal micro SIM socket                                      |
| Expandable I/O    | 1x MezIO® expansion interface for Neosys MezIO® modules  |

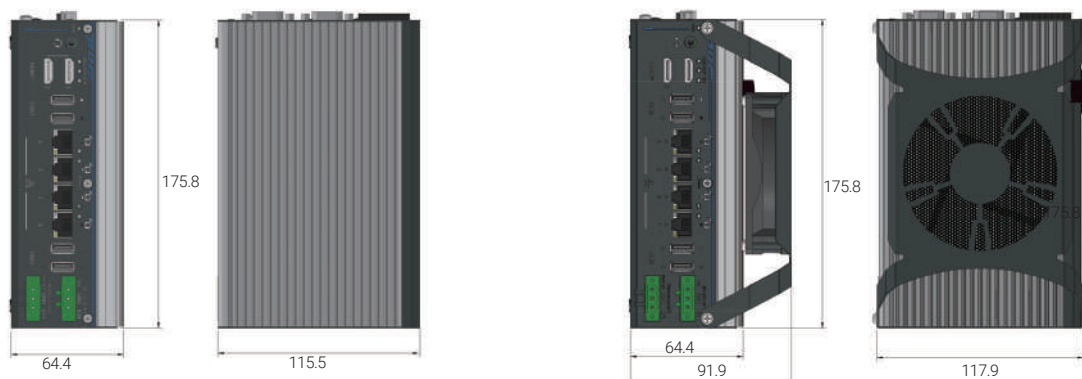
| Power Supply              |  |
|---------------------------|--|
| DC Input                  | 1x 3-pin pluggable terminal block for 8 to 35V DC input  |
| Remote Ctrl. & LED Output | 1x 3-pin pluggable terminal block for remote control and PWR LED output                                |
| Mechanical                |  |
| Dimension                 | 64mm (W) x 116mm (D) x 176mm (H)<br>92mm (W) x 118mm (D) x 176mm (H) (with fan)                        |
| Weight                    | 1.2 kg (fanless) or 1.4 kg (with fan)  |
| Mounting                  | DIN-rail mount (standard) or wall-mount (optional)   |
| Environmental             |  |
| Operating Temperature     | -25°C ~ 70°C (15W TDP, fanless)<br>-25°C ~ 45°C (30W TDP, fanless)<br>-25°C ~ 70°C (30W TDP, with fan) |
| Storage Temperature       | -40°C ~ 85°C   |
| Humidity                  | 10%~90% , non-condensing   |
| Vibration                 | MIL-STD-810H, Method 514.8, Category 4 (with wall-mount)   |
| Shock                     | MIL-STD-810H, Method 516.8, Procedure I (with wall-mount)  |
| EMC                       | CE/FCC Class A, according to EN 55032 & EN 55035   |
| Safety                    | UL 62368-1, IEC 62368-1  |

## Appearance



## Dimensions

Unit : mm



## Ordering Information

| Model No. | Product Description   |
|-----------|---|
| POC-915   | AMD® Ryzen™ PRO 8640U Ultra-compact Embedded Computer with 4x PoE+, 4x USB 3.2 and MeziO® Interface |

## Optional Accessories

|                            |   |
|----------------------------|---|
| <b>PA-120W-OW</b>          | 120W AC/ DC power adapter with 12V, 10A DC output, cord end terminals for terminal block.<br>Operating temperature: -30°C to 60°C |
| <b>PA-160W-OW</b>          | 160W AC-DC power adapter, 20V/8A; 18AWG/120cm; cord end terminals for terminal block.<br>Operating temperature : -30°C to 70°C    |
| <b>Cbl-DB9F-3DB9M-15CM</b> | DB9 (Female) to 3x DB9 (Male), length: 15CM for COM2/3/4  |
| <b>Wmkit-H-POC500</b>      | Wall-mount assembly for POC-500/700/900 series, horizontal type   |
| <b>Wmkit-V-POC500</b>      | Wall-mount assembly for POC-500/700/900 series, vertical type   |
| <b>AccsyBx-FAN-POC-900</b> | Fan assembly for POC-900 series, 92x92x25 mm  |
| <b>MeziO® Modules</b>      |   |
| <b>MeziO®-C180-50</b>      | MeziO® module with 4x RS-232/ 422/ 485 and 4x RS-232 ports  |
| <b>MeziO®-C181-50</b>      | MeziO® module with 4x RS-232/ 422/ 485 and 4x RS-422/ 485 ports   |
| <b>MeziO®-D330</b>         | MeziO® module with 16-CH isolated DI and 16-CH isolated DO  |
| <b>MeziO®-G4</b>           | MeziO® module with 4-Port GbE supporting 9.5 kB jumbo frame   |
| <b>MeziO®-U4-50</b>        | MeziO® module with 4-port USB 3.1   |
| <b>MeziO®-V20</b>          | MeziO® module with 16-mode ignition power control and 1x mini-PCIe socket (USB2 only) for in-vehicle usage                        |
| <b>MeziO®-V21</b>          | MeziO® module with 16-mode ignition power control and 1x mini-PCIe socket (USB2+PCIe) for in-vehicle usage                        |