



## FEATURES

- Intel® Core™ Ultra Processors (Series 2) (codenamed Arrow Lake-S)
- Up to 4x DDR5 5600MHz ECC UDIMMs (with W880 PCH)
- 4x OCP NIC 3.0 slots
- 1x PCIe Gen4 x4 slot (with W880 PCH)
- 2x M.2 Key M for storage
- 1x M.2 Key B for 4G/5G/LTE module
- Optional TPM 2.0 for security
- Ethernet Bypass available with the [Portwell PNC series OCP NIC 3.0 network adapters](#)

## SPECIFICATION

|                       |                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form Factor</b>    | 1U 19" Rackmount                                                                                                                                                                                                                                                                                                                                                                     |
| <b>CPU</b>            | Intel® Core™ Ultra Processors (Series 2)<br>(codenamed Arrow Lake S)<br>Up to 24 cores (Chipset: W880 and Q870)                                                                                                                                                                                                                                                                      |
| <b>BIOS</b>           | AMI Aptio® V UEFI BIOS                                                                                                                                                                                                                                                                                                                                                               |
| <b>IPMI</b>           | N/A                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>System Memory</b>  | Total 4 DIMMs (2DPC)<br>(1DPC) 2x DDR5 6400MHz UDIMM, up to 96GB<br>(2DPC) 4x DDR5 5600MHz UDIMM, up to 192GB<br>W880 supports ECC memory                                                                                                                                                                                                                                            |
| <b>Expansion</b>      | OCP NIC 3.0 slots (extended depth): <ul style="list-style-type: none"> <li>• 2x PCIe Gen5 x8 from CPU</li> <li>• 2x PCIe Gen4 x4+x4 from PCH</li> </ul> <p>PCIe slot:<br/>1x PCIe Gen4 x4<br/>(with W880 PCH)</p> <p>M.2:</p> <ul style="list-style-type: none"> <li>• 1x M.2 Key B 3052 socket with dual SIM card slots (USB)</li> <li>• 1x M.2 Key E 2230 socket (PCIe)</li> </ul> |
| <b>Ethernet Ports</b> | 1x GbE RJ45 MGMT via Intel® Ethernet Controller I226                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>        | 2x M.2 Key M 2280/2242 sockets (NVMe)                                                                                                                                                                                                                                                                                                                                                |
| <b>Power Supply</b>   | 500W Single AC Power Supply<br>or 300W Redundant AC Power Supply<br>AC 100V-240V @47Hz-63Hz                                                                                                                                                                                                                                                                                          |
| <b>Cooling</b>        | CPU: Passive heatsink<br>System: 5x smart fans (*Subject to change)                                                                                                                                                                                                                                                                                                                  |
| <b>Security</b>       | Optional TPM 2.0                                                                                                                                                                                                                                                                                                                                                                     |
| <b>OS Support</b>     | Linux                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Dimension</b>      | 438mm (W) x 442.75mm (D) x 44mm (H)<br>17.24" (W) x 17.43" (D) x 1.73" (H)                                                                                                                                                                                                                                                                                                           |

## I/O

|                    |                                                                                                                                     |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Serial Port</b> | 1x RJ45 Console port                                                                                                                |
| <b>USB</b>         | 2x USB 3.2 Gen2 x1 ports, Type A<br>2x USB 3.2 Gen2 x1 headers onboard                                                              |
| <b>LCD Panel</b>   | N/A                                                                                                                                 |
| <b>Display</b>     | 1x HDMI 2.1 connector at rear I/O                                                                                                   |
| <b>LED</b>         | Power/Status/HDD LEDs                                                                                                               |
| <b>Power</b>       | Front:<br>1x Power button<br>1x Reset button<br><br>Rear:<br>1x 500W single AC power supply<br>or 1x 300W Redundant AC power supply |

## ENVIRONMENT

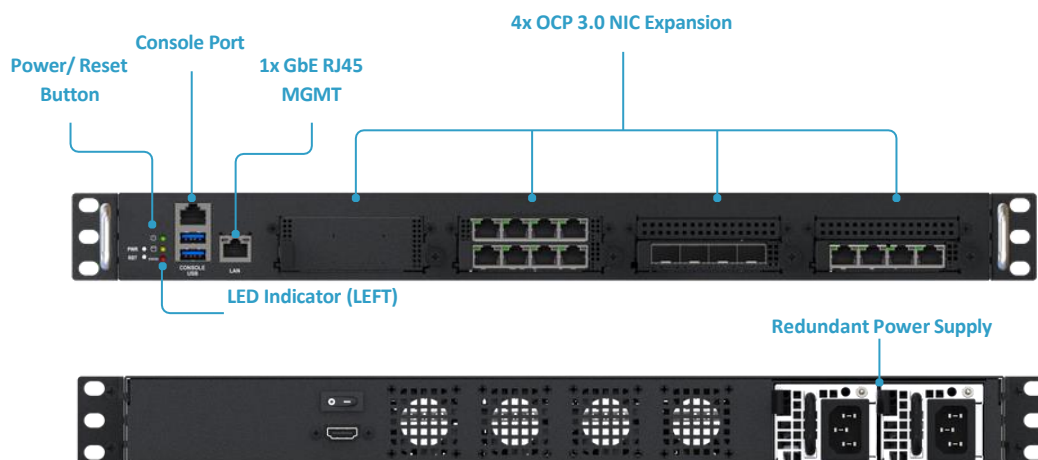
|                              |                               |
|------------------------------|-------------------------------|
| <b>Operating Environment</b> | 0°C to 40°C (32°F to 104°F)   |
| <b>Storage Environment</b>   | -20°C to 70°C (-4°F to 158°F) |
| <b>Humidity</b>              | 5% to 95% non-condensing      |

## CERTIFICATION

|                      |                   |
|----------------------|-------------------|
| <b>Certification</b> | CE/FCC Compliance |
|----------------------|-------------------|

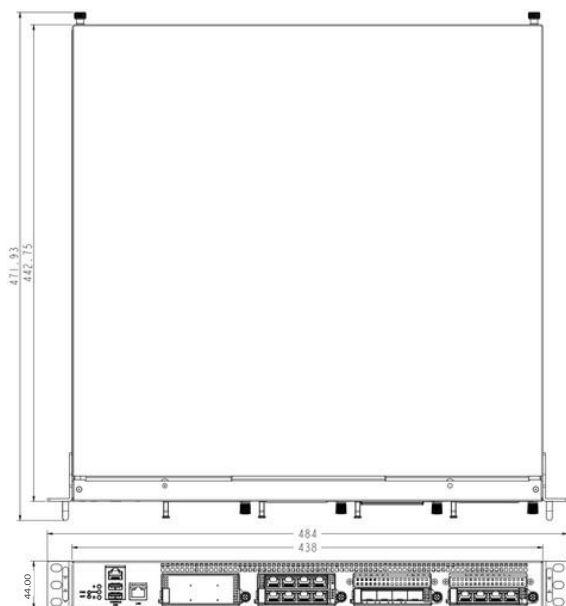


## PRODUCT I/O VIEW



## DIMENSION

Unit: mm



## ORDERING GUIDE

|             |                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------|
| 510-25-0007 | (R). PNSR-4000 1U Network Appliance Based on Intel Core Ultra Series 2_W880 PCH, 500W PSU     |
| 510-25-0017 | (R). PNSR-4000 1U Network Appliance Based on Intel Core Ultra Series 2_W880 PCH, 300W 1+1 PSU |

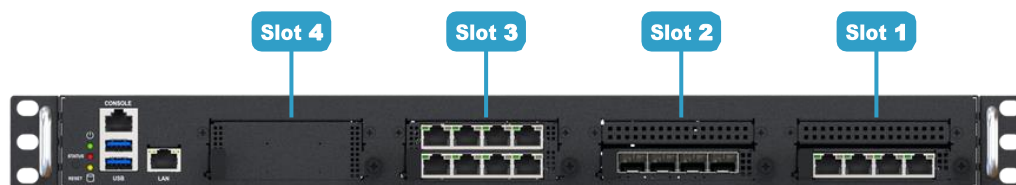
### \*Optional NICs

|             |                                                                      |
|-------------|----------------------------------------------------------------------|
| 530-24-0025 | PNC-EB8R-G2. OCP NIC 3.0 Extended kit. 8x 2.5G RJ45. Bypass          |
| 530-24-0022 | PNC-EB4S-G10. SR 10G/1G card kit. 4x 10G SFP+. Bypass. Tall bracket  |
| 530-24-0024 | PNC-EB4S-G10. LR 10G/1G card kit. 4x 10G SFP+. Bypass. Tall bracket  |
| 530-24-0026 | PNC-EB4R-G2. OCP NIC 3.0 kit. 4x 2.5G RJ45. Bypass. Tall bracket     |
| 530-23-0001 | PNC-OB2R-G10. OCP NIC 3.0 kit. 2x 10G RJ45. Bypass. Tall bracket     |
| 530-26-0004 | PNC-ON2Q-G100. OCP NIC 3.0 kit. 2x 100GbE QSFP28 Ports. Tall bracket |
| 530-24-0028 | PNC-ON4S-G25. OCP NIC 3.0 kit. 4x 25G SFP28. Tall bracket            |
| 530-24-0030 | PNC-ON4S-G10. OCP NIC 3.0 kit. 4x 10G SFP+. Tall bracket             |
| 530-26-0002 | PNC-ON4R-G10. OCP NIC 3.0 kit. 4x 10GbE RJ45 Ports. Tall bracket     |
| 530-24-0032 | PNC-ON4S-G1. OCP NIC 3.0 kit. 4x 1G SFP. Tall bracket                |
| 530-24-0035 | PNC-OS4M. OCP 3.0 adapter kit for Four M.2 Expansion                 |
| 530-24-0036 | PNC-OS2M. OCP 3.0 adapter kit for Two M.2 Expansion                  |

\*All information provided is subject to change without notice. Last updated: July 28, 2026



## NIC and Expansion Module Selection Guide



| NIC & Expansion Module | Configuration     | Bypass  | Need PNC-N001 Card? | Slot 4<br>Gen5 X8   | Slot 3<br>Gen5 X8                             | Slot 2<br>Gen4 x4 + x4 | Slot 1<br>Gen4 x4 + x4 |
|------------------------|-------------------|---------|---------------------|---------------------|-----------------------------------------------|------------------------|------------------------|
| PNC-EB8R-G2            | 8x 2.5GbE RJ45    | 4 pairs | no                  | ✓                   | ✓                                             | ✓                      | ✓                      |
| PNC-EB4S-G10 (SR)      | 4x 10GbE SFP+     | 2 pairs | no                  | ✓                   | ✓                                             | Downgrade to x4        |                        |
| PNC-EB4S-G10 (LR)      | 4x 10GbE SFP+     | 2 pairs | no                  | ✓                   | ✓                                             | Downgrade to x4        |                        |
| PNC-EB4R-G2            | 4x 2.5GbE RJ45    | 2 pairs | no                  | ✓                   | ✓                                             | ✓                      | ✓                      |
| PNC-EB2Q-G100          | 2x 100GbE QSFP28  | 1 pair  | no                  | ✓                   | ✓                                             | Not Enough Bandwidth   |                        |
| PNC-OB2R-G10           | 2x 10GbE RJ45     | 1 pair  | yes                 | ✓                   | ✓                                             | ✓                      | ✓                      |
| PNC-ON1Q-G200          | 1x 200GbE QSFP56  | N/A     | yes                 | ✓                   | ✓                                             | Not Enough Bandwidth   |                        |
| PNC-ON2Q-G100          | 2x 100GbE QSFP28  | N/A     | yes                 | ✓                   | ✓                                             | Not Enough Bandwidth   |                        |
| PNC-ON4S-G25           | 4x 25GbE SFP28    | N/A     | yes                 | Downgrade to x8     |                                               | Downgrade to x4        |                        |
| PNC-ON4S-G10           | 4x 10GbE SFP+     | N/A     | yes                 | ✓                   | ✓                                             | Downgrade to x4        |                        |
| PNC-ON4R-G10           | 4x 10GbE RJ45     | N/A     | yes                 | ✓                   | ✓                                             | ✓                      | ✓                      |
| PNC-ON4S-G1            | 4x 1GbE SFP       | N/A     | yes                 | ✓                   | ✓                                             | ✓                      | ✓                      |
| PNC-OS4M               | 4x M.2 Key M 2280 | N/A     | yes                 | Not recommended.    | Not recommended. Only bottom layer will work. |                        |                        |
| PNC-OS2M               | 2x M.2 Key M 2280 | N/A     | yes                 | work.<br>PCIe Gen5. | PCIe Gen5                                     | PCIe Gen4              | PCIe Gen4              |

