



# PNSR-5001

1U Network Appliance Based on Intel® Xeon® D-2800/D-2700 Series SoC, Featuring 4x 25GbE SFP28, 3x OCP NIC 3.0 slots and BMC



## FEATURES

- Intel® Xeon® D-2800/D-2700 Series Processors (formerly Ice Lake-D HCC), up to 22 cores
- 8x DDR4 2933MHz DIMMs up to 1024GB memory
- 3x OCP NIC 3.0 expansion
  - Ethernet Bypass available with Portwell PNC network adaptor series
- 4x 25GbE SFP28 Fiber ports
- Supports IPMI with AST2500 BMC
- 600W Redundant PSU
- 3x M.2 expansion:
  - 1x M.2 key M for storage
  - 1x M.2 key B for Cellular module
  - 1x M.2 key E for WiFi module

## INTRODUCTION

PNSR-5001 is a 1U rackmount network appliance powered by Intel® Xeon® D-2800/D-2700 Series Processors (formerly Ice Lake-D HCC Refresh/Ice Lake-D HCC), featuring up to 22 cores, and designed with three OCP NIC 3.0 network adaptors.

More specifically, the PNSR-5001 supports three OCP NIC 3.0 expansion slots, with two slots supporting PCIe Gen4 x16 from CPU, and the other supporting PCIe Gen3 x8 from HSIO. All three OCP NIC 3.0 slots are compatible with OCP NIC 3.0 (SFF/TSFF) off-the-shelf network adaptors. Each OCP NIC 3.0 slot has an independent SMBus and USB 2.0. With Portwell's proprietary PNC series of network adaptors, PNSR-5001 can enable Ethernet Bypass function by application-centric request.

Equipped with one of the most mainstream BMC chips, the AST2500 on-board, PNSR-5001 provides rich I/O elements, including a console port, two USB 3.2 Gen 1 ports, three USB 2.0 headers on-board, and an LCD display module with control buttons. The I/O interface also contains two LEDs for PSU power status and storage drive (HDD) status. Additionally, the PNSR-5001 supports two SATA 3.0 for 2.5" hard drives, one on-board M.2 M key, one M.2 B key for cellular modules, and one M.2 E key for WiFi module.

## SPECIFICATION

<b>CPU</b>	Intel® Xeon® D-2800/D-2700 Series Processors Supports 4 to 22 cores with TDP ranging from 65W to 135W
<b>BIOS</b>	AMI uEFI BIOS
<b>System Memory</b>	Total 8 DIMMs DDR4 2933 RDIMM, up to 64GB/DIMM DDR4 2933 LRDIMM, up to 128GB/DIMM DDR4 2666 ECC/Non-ECC UDIMM Up to 1024GB
<b>Expansion</b>	OCP NIC 3.0 cards <ul style="list-style-type: none"> <li>• Slot 1: PCIe Gen4 x16 from CPU</li> <li>• Slot 2: PCIe Gen4 x16 from CPU</li> <li>• Slot 3: PCIe Gen3 x8 from HSIO</li> </ul> 1x M.2 Key B 3042/3052 socket 1x M.2 Key E 2230 socket
<b>Ethernet Ports</b>	1x GbE RJ45 MGMT via Inte I210 1x GbE RJ45 IPMI BMC 4x 10GbE/25GbE SFP+/SFP28 (Max 100Gb throughput)
<b>IPMI</b>	AST2500 BMC
<b>Storage Device</b>	2x 2.5" SATA 3.0 HDDs/SSDs 1x M.2 Key M 2280 socket
<b>Power</b>	600W Redundant AC Power Supply
<b>Dimension</b>	435mm (W) x 524mm (D) x 44.34mm (H) 17.13" (W) x 20.63" (D) x 1.75" (H)

## I/O

<b>Serial Port</b>	1x RJ-45 Console port
<b>USB</b>	<ul style="list-style-type: none"> <li>• 2x USB 3.2 Gen 1 ports</li> <li>• 3x USB 2.0 headers on-board</li> </ul>
<b>LCM</b>	RS-232, 16x2 characters
<b>Display</b>	LCD Panel at front I/O VGA Header at rear I/O
<b>LED</b>	<ul style="list-style-type: none"> <li>• 1x Power LED</li> <li>• 1x HDD LED</li> </ul>

## ENVIRONMENTAL

<b>Operating Environment</b>	0~40°C (32~104°F)
<b>Storage Environment</b>	-10~70°C (14~158°F)
<b>Humidity</b>	5~95% RH, non-condensing
<b>Certification</b>	CE/FCC

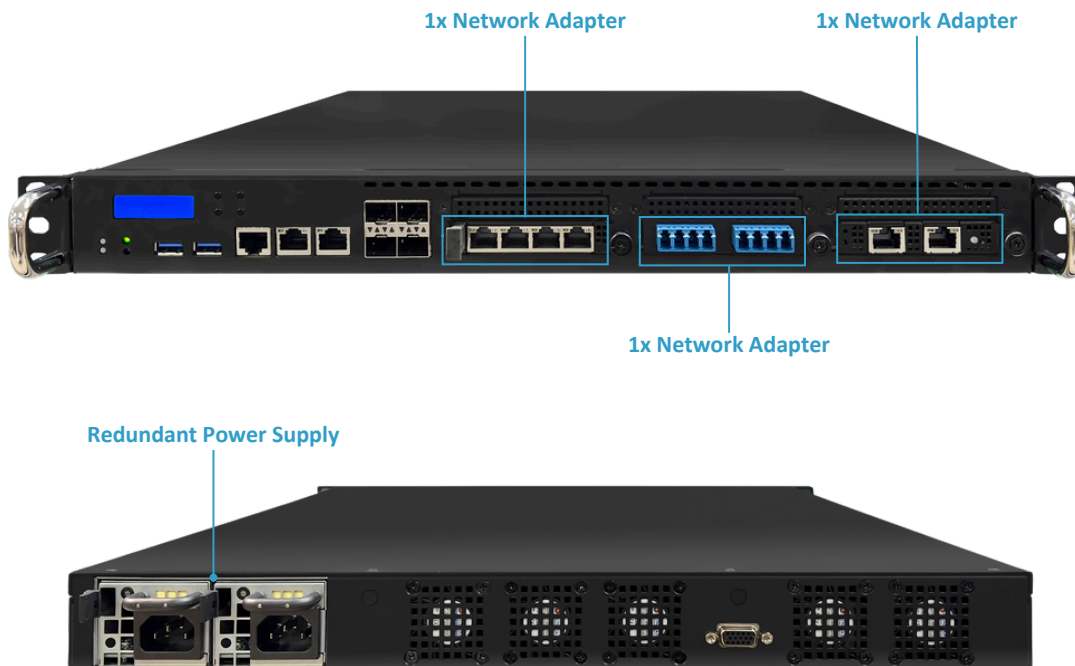
\*All information provided is subject to change without notice. Last updated: May 02, 2024



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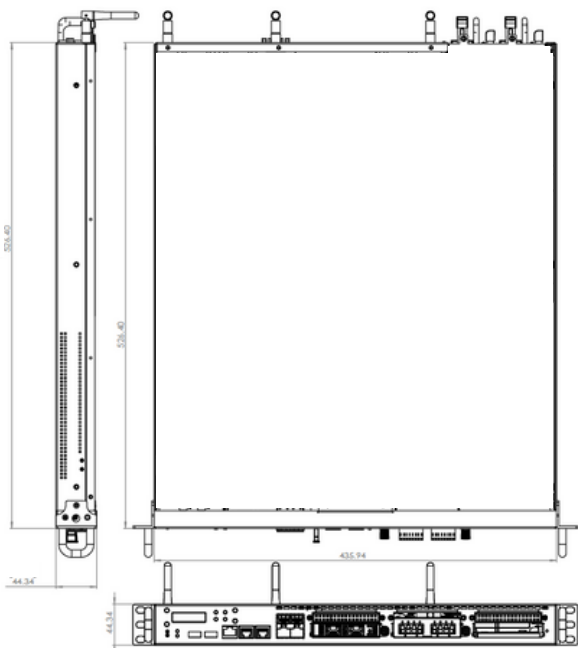
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## PRODUCT I/O VIEW



## DIMENSION

Unit: mm



## ORDERING GUIDE

<b>In-process</b>	(R). PNSR-5001. 1U Network System with Intel® Xeon® D-2800/D-2700 Series SoC
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### \*Optional NICs

<b>18-810004-Z002</b>	(R). PNC-OB2R-G10. OCP NIC 3.0 Network Module with 2x 10GbE Copper Ports & Bypass Function
<b>18-810002-Z002</b>	(R). PNC-EB4S-G10. Network Module with 4x 10GbE SFP+ & Bypass Function
<b>In Process</b>	(R). PNC-EB8R-G2. Network Module with 8x 2.5GbE Copper Ports & Bypass Function
<b>18-810001-Z002</b>	(R). PNC-EB4R-G2. Network Module with 4x 2.5GbE Copper Ports & Bypass Function

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