

## Status: Renamed to PNSR-5001

**Migration options: This is a product model name change only. Customers will experience no change in functionality. The new product name is designed to better align the brand and value Portwell's products deliver.**

APTNS-13181 is a 1U rackmount network appliance powered by Intel® Xeon® D-2700 Series Processors (formerly Ice Lake-D HCC), featuring up to 20 cores, and designed with three OCP NIC 3.0 network adaptors.

APTNS-13181 is designed with two slots supporting PCIe Gen4 x16 from CPU, and the other supporting PCIe Gen3 x8 from HSI0. 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 APTNC series of network adaptors, APTNS-13181 can enable Ethernet Bypass function by application-centric request.

Equipped with one of the most mainstream BMC chips, the AST2500 on-board, APTNS-13181 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 APTNS-13181 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.

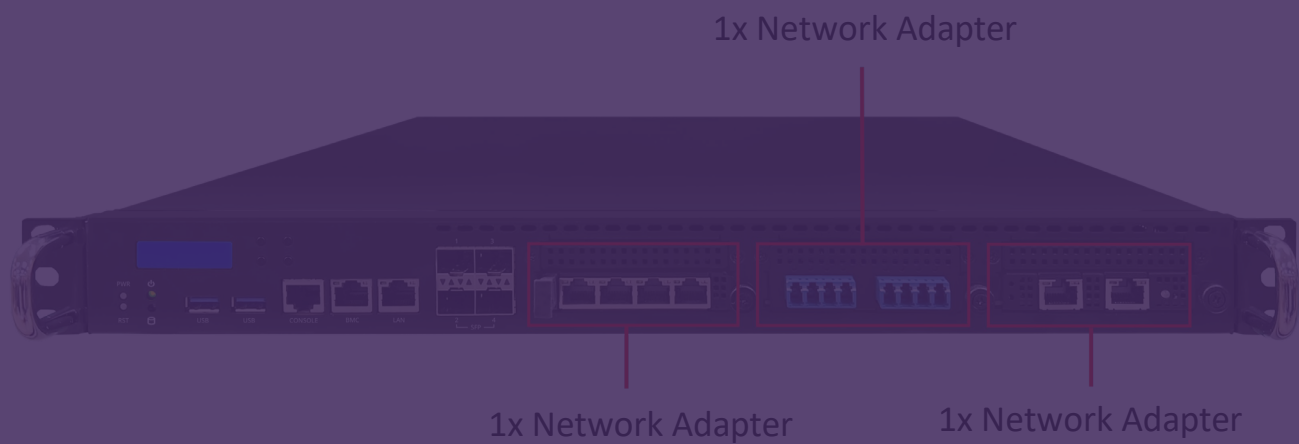
- Intel® Xeon® D-2700 Series Processors (formerly Ice Lake-D HCC), up to 20 cores
- Ethernet Bypass available with Portwell APTNC network adaptor series
- 4x 25GbE SFP28 Fiber ports
- 3x OCP NIC 3.0 slots
- 600W Redundant PSU
- 3x M.2 expansion:
  - 1x M.2 Key M for storage
  - 1x M.2 Key B for cellular modules
  - 1x M.2 Key E for WiFi module

SPECIFICATION	
CPU	Intel® Xeon® D-2700 Series Processors (formerly Ice Lake-D HCC) Supports 4 to 20 cores with TDP ranging from 65W to 118W
BIOS	AMI uEFI BIOS
System Memory	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
Expansion	OCP NIC 3.0 cards - Slot 1: PCIe Gen4 x16 from CPU - Slot 2: PCIe Gen4 x16 from CPU - Slot 3: PCIe Gen3 x8 from HSI0 1x M.2 Key B 3042/3052 socket 1x M.2 Key E 2230 socket
Ethernet Ports	1x GbE RJ45 MGMT via Intel I210 1x GbE RJ45 IPMI BMC 4x 10GbE/25GbE SFP+/SFP28 (Max 100Gb throughput)
IPMI	AST2500 BMC
Storage Device	2x 2.5" SATA 3.0 HDDs/SSDs 1x M.2 Key M 2280 socket
Power	600W Redundant AC Power Supply
Dimension	435mm (W) x 524mm (D) x 44.34mm (H) 17.13" (W) x 20.63" (D) x 1.75" (H)

I/O	
Serial Port	1x RJ-45 Console port
USB	2x USB 3.2 Gen 1 ports 3x USB 2.0 headers on-board
LCM	RS-232, 16x2 characters
Display	LCD Panel at front I/O VGA Header at rear I/O
LED	1x Power LED 1x HDD LED

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

# NIC Configuration



## ORDERING GUIDE

Product	P/N	Description
APTNS-13181-1U	18-810001-Z002	1U Network Appliance with Intel® Xeon® D-2700 Series SoC
Optional NICs	P/N	Description
APTNC-CX4R-BP	18-810004-Z002	Copper Network Module with 2x 10GbE Copper Ports & Bypass Function
APTNC-OX4S-BP	18-810002-Z002	Network Module with 4x 10GbE SFP+ & Bypass Function
APTNC-O22R-BP	18-810003-Z002	Network Module with 8x 2.5GbE Copper Ports & Bypass Function
APTNC-O24R-BP	18-810001-Z002	Network Module with 4x 2.5GbE Copper Ports & Bypass Function

**Status: Renamed to PNSR-5001**

**Migration options: This is a product model name change only. Customers will experience no change in functionality. The new product name is designed to better align the brand and value Portwell’s products deliver.**