

# PUZZLE-IN004

1U Rackmount Network Appliance with Intel® Xeon® D Processor support 8 x GbE, 4 x 10GbE SFP+ and 1 PCIe x8 slot



## Features

- Intel® Xeon D-2100 series processor (Skylake-D) with optional Intel® QAT
- Support eight GbE RJ-45 via Intel® I211-AT, four 10 GbE SFP+ and IEI networking module
- 8 x 288-pin RDIMM, 2 x DDR4 2666 MHz, RDIMM up to 256GB / LRDIMM up to 512GB
- 1 x RJ-45 Console, 1 x USB 3.2 Gen 1 (5Gb/s), 1 x USB 2.0, LCM
- 2 x 2.5" SATA drive bay, 2 x M.2 M key 2280 (PCIe x4), 1 x PCIe Mini (PCIe + USB 2.0) with SIM card
- Support one PCIe x8 slot, one PuIM module slot
- Redundant PSUs

## Specifications

		PUZZLE-IN004-XD1	PUZZLE-IN004-XD2	PUZZLE-IN004-XD3	PUZZLE-IN004-XD4	PUZZLE-IN004-XD5
Platform	Form Factor	1U				
	CPU	Intel® Xeon® D-2145NT processor 8C16T, 1.90 GHz	Intel® Xeon® D-2146NT processor 8C16T, 2.30 GHz	Intel® Xeon® D-2166NT processor 12C24T, 2.00 GHz	Intel® Xeon® D-2177NT processor 14C28T, 1.90 GHz	Intel® Xeon® D-2187NT processor 16C32T, 2.00 GHz
	Chipset	Integrated in CPU				
Memory	Memory Technology	DDR4 2133/2400 MHz ECC DDR4 RDIMM/LRDIMM				
	Memory Capacity	RDIMM up to 256GB / LRDIMM up to 512GB				
	Memory Socket	8 x 288-pin DIMM				
Network and Security	Network Acceleration and Security Function	<ul style="list-style-type: none"> <li>• Intel® AES New Instructions</li> <li>• Intel® Software Guard Extensions (Intel® SGX)</li> <li>• Intel® Memory Protection Extensions (Intel® MPX)</li> <li>• Intel® Trusted Execution Technology</li> </ul>				
	TPM	1 x TPM 2.0 pin header				
Networking	Ethernet IC	1 GbE NIC: Intel® i211-AT 10 GbE: Intel® X722 integrated in CPU				
	Ethernet Port	4 x 10 GbE SFP+ / 8 x 1GbE RJ-45 LAN ports				
	Network Module Slot	1 x PuIM module slot				
Expansion Slot	PCIe Slot	1 x PCIe 3.0 x8 (FHHL) slot (double width)				
	PCIe Mini Card Slot	1 x PCIe Mini (PCIe + USB 2.0) with SIM card				
	M.2	1 x M.2 M key 2260/2280 Support PCIe 3.0 x4 nVME				
Storage	Storage	2 x 2.5" SATA HDD/SSD bay support SATA 3.0 (6 Gbps)				
	eMMC	N/A				
	SD Card	N/A				
External I/O	USB	1 x USB 2.0 / 1 x USB 3.2 Gen 1				
	Console	1 x RJ-45				
Internal I/O	HDMI	N/A				
	USB	N/A				
Power and Mechanical	Power Switch	1 x Power switch				
	Reset Button	1 x Reset button				
	Power Input	100 V ~ 240 V				
	Type/Watt	Redundant power 300W, 90V ~ 264V AC				
	Processor Cooling	1 x Passive CPU heatsink				
	System Cooling	3 x Cooling fans with smart fan				
Physical and Environmental	Antenna Hole	1 x Antenna hole				
	Storage Temperature	-20°C ~ 75°C (-4°F ~ 167°F)				
	Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)				
	Operating Humidity	5% ~ 90% non-condensing				
	Dimensions (W x L x H) (mm)	430 x 426 x 44.2				
OS and Certifications	Weight	7 kg				
	Certification	CE / FCC / RoHS				
	Operating System	Linux Ubuntu 18.04.04 CentOS 7 / Red Hat / Fedora EPEL Microsoft Windows 10				
Indicators	LCM	LCM, 2 buttons				
	LED	Power status, Storage status, Alert LED				

## Ordering Information

Part No.	Description
PUZZLE-IN004-XD1/R-R10	1U rackmount network appliance with Intel® Xeon® D-2145NT processor, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD1/32G/R-R10	1U rackmount network appliance with Intel® Xeon® D-2145NT processor, four 8GB DDR4, two 240GB SSD, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD2/R-R10	1U rackmount network appliance with Intel® Xeon® Intel Xeon D-2146NT processor, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD2/32G/R-R10	1U rackmount network appliance with Intel® Xeon® D-2146NT processor, four 8GB DDR4, two 240GB SSD, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD3/R-R10	1U rackmount network appliance with Intel® Xeon® D-2166NT processor, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD3/32G/R-R10	1U rackmount network appliance with Intel® Xeon® D-2166NT processor, four 8GB DDR4, two 240GB SSD, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD4/R-R10	1U rackmount network appliance with Intel® Xeon® D-2177NT processor, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD4/64G/R-R10	1U rackmount network appliance with Intel® Xeon® D-2177NT processor, four 16GB DDR4, two 480GB SSD, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD5/R-R10**	1U rackmount network appliance with Intel® Xeon® D-2187NT processor, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS
PUZZLE-IN004-XD5/64G/R-R10**	1U rackmount network appliance with Intel® Xeon® D-2187NT processor, four 16GB DDR4, two 480GB SSD, eight 1GbE, four 10 GbE, one PuIM module slot and one PCIe expansion, RoHS

\*\* By order production

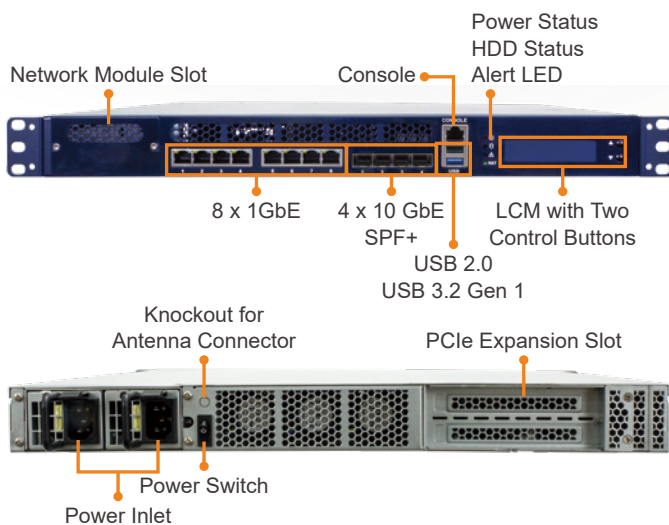
## Packing List

	PUZZLE-IN004									
	XD1/R	XD2/R	XD3/R	XD4/R	XD5/R	XD1/32G/R	XD2/32G/R	XD3/32G/R	XD4/64G/R	XD5/64G/R
Power cord	2	2	2	2	2	2	2	2	2	2
Rack mounting ears	2	2	2	2	2	2	2	2	2	2
Screws for rack mounting ears	6	6	6	6	6	6	6	6	6	6
USB to console cable	option	option	option	option	option	1	1	1	1	1
RS-232 to console cable	1	1	1	1	1	option	option	option	option	option
Slide rail	option	option	option	option	option	option	option	option	option	option

## Options

Item	Part No.	Description
Slide rail	RAIL-B02	New rail kit for new 1U & 2U NAS: TVS-471U, 1253U, etc
USB to console cable	32013-004000-100-RS	ROUND CABLE; LAN CABLE; FTDI Console Cable; 2; 1800MM; (A)USB A TYPE 4P MALE+PCB:FTDI_FT232RL; (B)RJ-45 8P8C; RoHS
RS-232 to console cable	32005-005100-100-RS	ROUND CABLE; RS-232/422/485; PUZZLE RS-232 Cable; 2; 500MM; 24AWG; (A) D-SUB 9P MALE+#4-40 Screw; (B)RJ-45 PLUG 8P8C; ONE PCS PKG; TC&C; RoHS

## IO Interface



## Dimensions (Unit: mm)

