



## PUZZLE-IN004 series from IEI Accelerates Deployment of Universal Customer Premises Equipment (uCPE)

*PUZZLE-IN004-XD1 & PUZZLE-IN004-XD4 -are verified Intel® Select Solutions for uCPE for CentOS.*

Universal customer premises equipment (uCPE) is an emerging category of network functions virtualization (NFV)-based edge computing and service provisioning systems that enable service agility for communications service providers (CommsPs). IEI has launched its PUZZLE-IN004 series based on the Intel Select Solutions for uCPE, a reference design that combines the powerful Intel® Xeon® D processor with an optimized software stack.

The PUZZLE-IN004 series are a platform that can bring virtualized and non-virtualized (bare metal) services to small branch offices and small-to-medium-sized businesses. Intel Select Solutions for uCPE provides a reference design for these platforms that is based Intel technology and incorporates NFV systems architecture requirements.

### Configuration and Specification

The IEI PUZZLE-IN004 series are verified Intel Select Solutions for uCPE that leverages the following hardware components:

<b>PUZZLE-IN004 Series</b>	<b>Base Platform</b>	<b>Plus Platform</b>
Server Name	PUZZLE-IN004-XD1	PUZZLE-IN004-XD4
Processor	Intel® Xeon® D-2145NT, 8C16T, 1.9GHz, 65W	Intel® Xeon® D-2177NT, 14C28T, 1.90 GHz,105W
Memory	16 GB DDR4 2666 MHz, 4 x 4 GB RDIMM	64 GB DDR4 2666 MHz, 16 x 4 GB RDIMM
NICs	Integrated X722	Integrated X722
Intel® QAT	Integrated	Integrated
Storage	1* 2.5" Intel® SSD (SSDSC2KB240G8)	2 x 2.5" Intel® SSD (SSDSC2KB480G8)
Operating System	CentOS 7.6	CentOS 7.6
Other Hardware Features	Networking expansion via IEI PuIM modules Redundant power supply	Networking expansion via IEI PuIM modules Redundant power supply

### ABOUT THE PRODUCT

- Redundant power supply
- Storage expansion via 2\* SATA, 2\* M.2 NVMe x4
- Wireless via 1\* PCIe Mini with SIM card slot

- Interior PCIe Gen 3 by 8 expansion for AI inferencing application with IEI Mustang-V100/F100
- Exterior networking expansion with IEI PulM series modules

## PRODUCT PHOTOGRAPHY



### Key Benefits

Key benefits of deploying an Intel Select Solutions for uCPE from IEI include:

**Faster evaluation:** Intel Select Solutions for uCPE combine tight hardware and software specifications to eliminate guesswork and speed decision-making. IT managers can focus their search on key value-added elements and select an optimal solution quickly.

**Fast and easy deployment:** Intel Select Solutions for uCPE feature pre-defined settings and rigorous system-wide tuning for efficient pre-deployment testing. This helps speed time to service delivery and IT staff can have increased confidence in solution performance.

**Workload-optimized performance:** Intel Select Solutions for uCPE configurations are designed by Intel and its partners to deliver to a performance threshold for the workload and are built on the latest Intel architecture technology including Intel Xeon D processors.

### Intel® Xeon® Processor D-2100 Product Family

The Intel Xeon processor D-2100 product family is based on the Intel Xeon Scalable processor architecture and is optimized for low power consumption and high-density solutions, integrating essential network, security, and acceleration capabilities into the platform. Intel Xeon D processor-based solutions enable CommSPs to bring intelligent services to the network edge by offering low total cost of ownership and power draw and delivering space-efficient commercial off-the-shelf servers. Key features include:

- Enhanced memory: Up to 512 GB of DDR4 ECC
- Enhanced accelerators: Integrated Intel® QuickAssist Technology (Intel® QAT) for accelerated compression and encryption/decryption
- New extensions: Intel® Advanced Vector Extensions 512 (Intel® AVX-512), a specialized instruction set for outstanding compute performance
- Enhanced networking: Up to four integrated 10 GbE Intel Ethernet adapters

## Conclusion

With the PUZZLE-IN004 series that is verified as Intel Select Solutions for uCPE for CentOS, IEI is delivering a differentiated platform with validated software from an ecosystem of a large number of tested and optimized virtual network functions (VNFs). This helps CommSPs get to market quickly and deliver new services to enterprises and small businesses.

## Learn More

IEI Solution Page: [https://www.ieiworld.com/puzzle\\_network\\_appliance/en/](https://www.ieiworld.com/puzzle_network_appliance/en/)

Intel Select Solutions web page: <https://builders.intel.com/intelselectsolutions>

Intel Xeon D processor family: <http://www.intel.com/xeond>

Intel Select Solutions are supported by the Intel Builders Program: <https://builders.intel.com>

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