

IEI PUZZLE Dev. Kit

Intel® CERA Design



Equipped with Intel® Xeon® Processor D-2100 series (Skylake-D) with Quad-channels DDR4, four port 10GbE SFP+, one Mustang-V100-MX8 and OpenNESS software, the PUZZLE Dev. Kit enables highly optimized and performant edge platforms to on-board and manage applications and network functions with cloud-like agility, and it eases edge platform development and deployment.



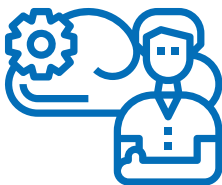
IoT Solutions Alliance



select solution



IEI PUZZLE Dev. Kit is intended for the following types of developers



Service Providers

Communication Service Providers (CoSP), Cloud Service Providers (CSP), Managed Service Providers (MSP) and Enterprise.



Edge Builder

Independent Software Vendors, Original Equipment Manufacturers, System Integrators



App/Services Developers

Network Function vendors, Enterprise/ Cloud/ IoT App vendors

IEI PUZZLE Dev. Kit



Features

- Intel® Xeon D-2100 series processor (Skylake-D) with Intel® QAT
- 8 x 288-pin RDIMM DDR4 2666MHz, RDIMM up to 256GB / LRDIMM up to 512GB
- Support 1 x PuIM modules support 1GbE, 10GbE or 25GbE
- Pre-installed CentOS & Open Network Edge Services Software (OpenNess) & Neural Network Optimization (OpenVINO™) toolkit
- Also available as Intel® Select Solution for uCPE
- Also available as Intel® Select Solutions for uCPE for ADVA



Specifications

		PUZZLE-IN004-XD1	PUZZLE-IN004-XD4
Platform	Form Factor	1U	
	CPU	Intel® Xeon® D-2145NT processor 8-core, 11M cache, 1.90 GHz	Intel® Xeon® D-2177NT processor 14-core, 19.25M cache, 1.90 GHz
	Chipset	Integrated in CPU	
Memory	Memory Technology	DDR4 2133/2400MHz ECC DDR4 RDIMM/LRDIMM	
	Memory Capacity	RDIMM up to 256GB / LRDIMM up to 512GB	
	Memory Socket	8 x 288-pin DIMM Sockets	
	System Memory	Pre-install 64GB (four 16GB) DDR4	Pre-install 128GB (eight 16GB) DDR4
Network and Security	Network Acceleration and Security Function	<ul style="list-style-type: none"> • Intel® AES New Instructions • Intel® Software Guard Extensions (Intel® SGX) • Intel® Memory Protection Extensions (Intel® MPX) • Intel® Trusted Execution Technology 	
	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 x8	
	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) (2 x 2.5" 512MB SSD pre-installed) (RAID 0/1 support)	
External I/O	USB	1 x USB 2.0 / 1 x USB 3.2 Gen 1	
	Console	1 x RJ-45	
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	
	Antenna Hole	1 x Antenna hole	
Physical and Environmental	Storage Temperature	-20°C ~ 75°C (-4°F ~ 167°F)	
	Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	
	Operating Humidity	Relative humidity: 5% ~ 90% non-condensing	
	Dimensions (W x L x H) (mm)	430 x 426 x 44.2	
	Weight	7 kg	
OS and Certifications	Certification	CE/FCC	
	Operating System	Pre-installed CentOS & Open Network Edge Services Software (OpenNess) & Neural Network Optimization (OpenVINO™) toolkit	
Indicators	LCM	LCM, 2 buttons	
	LED	Power status, Storage status, Alert LED	

Ordering Information

Part No.	Description
PUZZLE-IN004-XD1/64G/R-R10	1U Rackmount Network Appliance with IntelXeonD-2145NT (Up to 3.00 GHz, 8-Core, TDP 65W) Processor, four 64GB (four 16GB) DDR4, 1T (two 512GB) SSD, eight 1GbE, four 10 GbE, RoHS
PUZZLE-IN004-XD4/128G/R-R10	1U Rackmount Network Appliance with IntelXeonD-2177NT (Up to 3.00 GHz, 14-Core, TDP 105W) Processor, 128GB (eight 16GB) DDR4, 1T (two 512GB) SSD, eight 1GbE, four 10 GbE, RoHS

PuIM Series NIC Card Options

Part No.	Description
PuIM-10G4SF-XL710-R10	Intel® Ethernet Controller XL710-BM1 based Network Interface Card with 4 x SFP+ by 1 PCIe 3.0 x 8 interface, RoHS
PuIM-10G2SF-X710-R10	Intel® Ethernet Controller X710-BM2 based Network Interface Card with 2x SFP+ by 1 PCIe 3.0 x 8 interface, RoHS
PuIM-1G4T-I350-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 4 x RJ-45 by 2 PCIe 2.0 x4 interface, RoHS
PuIM-1G4T-I350-BP-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 4 x RJ-45 by 2 PCIe 2.0 x4 with bypass interface, RoHS
PuIM-1G8T-I350-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 8 x RJ-45 by 2 PCIe 2.0 x4 interface, RoHS
PuIM-1G8T-I350-BP-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 8 x RJ-45 by 2 PCIe 2.0 x4 with bypass interface, RoHS
PuIM-1G4SF-I350-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 4 x SFP by 2 PCIe 2.0 x4 interface, RoHS
PuIM-1G8SF-I350-R10	Intel® Ethernet Controller I350-AM4 based Network Interface Card with 8 x SFP by 2 PCIe 2.0 x4 interface, RoHS

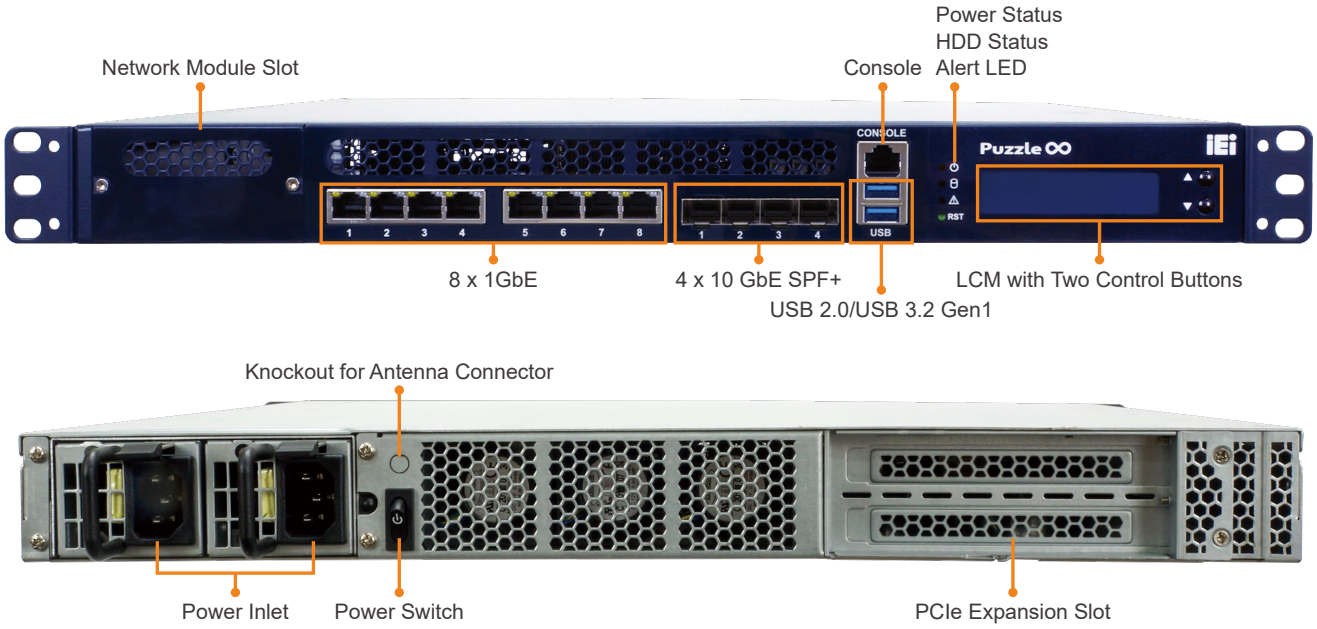
Options

Part No.	Description
RAIL-B02	Rail kit for PUZZLE-IN004 Dev.Kit (for rackmount)
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
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
27563-000001-RS	LTE/WCDMA, HSPA+, Fibocom, L860-GL-00, INTEL XMM7560, PCI-E Interface, L860-GL (LTE, CAT16, M.2), Typical 3.3V, CCL, RoHS

Packing List

2 x Power cord	1 x USB to console cable
2 x Rack mounting ears	6 x Screws for rack mounting ears

I/O Interface



Dimensions (Unit: mm)

