1U 19” EDGE SERVER WITH INTEL® XEON® D PROCESSOR FOR
COMMUNICATIONS AND 5G MEC INFRASTRUCTURE DEPLOYMENT

MECS-6120

Datasheet

Features

- 1x Intel® Xeon® D-17XX Series family processor
- 3x DDR4-2666 RDIMM ECC REG up to 192GB
- 2x 2.5” SATA bays and 2x M.2 M Key interfaces
- Flexible platform to meet 5G BBU demands
  - Clock sync with GPS/Beidou, IEEE 1588v2 and RS422
  - PCIe expansion: 1x PCIe x16 Gen3 & 1x PCIe x8 Gen3 FHFL
- 420mm depth 1U 19” rackmount form factor
- Built-in Intel® QAT: SSL (20G), Compression (15G)
- Intel® eASIC by card for FEC acceleration
- EMC grade: Class B & Advanced chassis management, IPMI v2.0 compliant

Specifications

CPU / Chipset / Memory	CPU	Intel® Xeon® Ice Lake-D SOC Processor 4 to 10C, TDP: 25W to 90W Intel® Xeon® D-1746TER 15MB 10c FC-BGA 67W QYQ7 Intel® Xeon® D-1747NTE 15MB 10c FC-BGA 80W QYQH Intel® Xeon® D-1749NT 15MB 10c FC-BGA 90W QYQ2 Note: For other processor SKUs, please contact your ADLINK representative.
	Memory	3x DDR4-2666 RDIMM sockets, ECC, REG, up to 192GB
BIOS		AMI BIOS on SPI flash memory
Operating Systems		Microsoft Windows Server 2012/2016 CentOS Linux 7.4/8.2 SuSE Linux Enterprise Server 11/12 Note: No OS installed by default
I/O Interfaces		**Front Access** 8x 10G SFP+ Ethernet ports (10C) 5x 10G SFP+ Ethernet ports (4C, 6C, 8C) 2x RJ-45 100/1000BASE-T Ethernet ports 1x USB 3.0/2.0 + 1x USB 2.0 1x RJ-45 console port 2x RJ-45 1PPS+TOD port 1x SMA port for GPS/Beidou signal **Internal** 1x COM port 1x VGA header 2x PPS CMMX header on motherboard 3x PPS/10M CMMX header on clock card

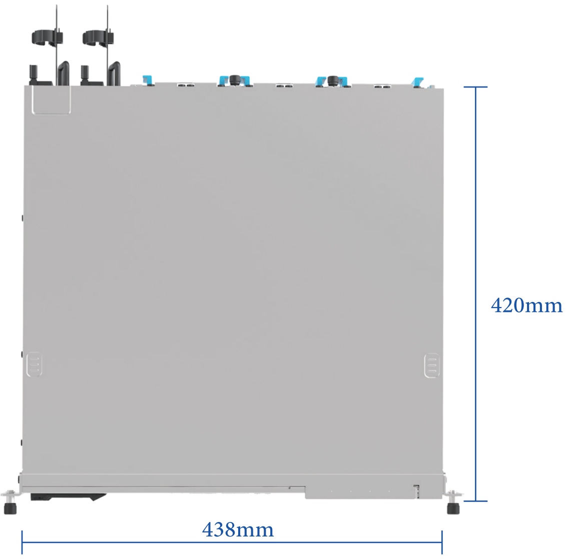
Specifications (cont'd)

Expansion	1x PCIe 3.0 x16 (single slot FHFL) via riser card 1x PCIe 3.0 x8 (single slot FHFL) via riser card
Control Buttons (front access)	Power, reset, UID
Chassis Management	IPMI v2.0 compliant with iKVM and SoL support
Storage	2x 2.5" hot-swappable SATA 6Gb/s 2x onboard M.2 SATA/NVMe sockets, 2242/2280 M Key (Supports software RAID 0, 1, 5, 10 by 4 SATA interfaces)
LEDs (front)	Power, alert, drive activity, UID, health behavior
TPM	TPM1.2/2.0 module
Hardware Acceleration	Intel® QuickAssist Technology
Regulatory	FCC/CE/CCC class B, UL, CB, and RoHS compliant Note: Certifications were passed with 450W AC-DC/DC-DC PSU installed.
Software Support	Validated with DPDK, provides high throughput for data plane packet processing
Thermal Reference for PCIe Card Design	The suggested PCIe bracket air inlet ratio is at least 30%, under which case, the airflow is 11.3 CFM. Note: Please contact your ADLINK representative for detailed information on thermal issue.
Mechanical Form Factor	1U 19'' rackmount 438mm x 44mm x 420mm (WxHxD)
Carton Dimension	572mm x 277mm x 761mm (WxHxD)
Weight	Net Weight: 7Kg Gross Weight: 11Kg Note: System weights are measured with 2 memory modules and 1 SATA drive installed, and without any OCP or PCIe cards.
Cooling	6x adaptive speed fans
Power	450W 1+1 redundant PSUs 100V to 240V AC @50-60Hz -36V to -72V DC
Environmental (PCIe card dependent)	Operating: -5 °C to +55 °C, 5% - 95%RH, non-condensing Note: Not including HDD and PCIe cards. Storage: -40 °C to +70 °C, 5% - 95% RH, non-condensing
Shock	Operating: Half-sine 2G, 11ms pulse, 100 pulses in each direction Non-operating: Trapezoidal, 25G, 170 inches/sec delta V, three drops in each direction
Vibration	Non-operating Vibration: 2.2Grms, 10 minutes per axis in each direction Note: Shock and vibration tests were passed with dual-slot graphics card installed.
Acoustic	Sound pressure < 75 dBA @1m with all fans maximum speed

Mechanical Overview

Front View

Rear View



Top View