



EDGE AI SERVER

LLM-2U-AM5

2U Edge AI Rackmount Server With AMD Ryzen™ 9000/7000 Processors & EPYC 4005/4004, B650 Chipset

Features

- Support AMD Ryzen™ 9000/7000 Series Desktop Processors & EPYC 4005/4004 (Max 170W)
- AMD B650 Chipset
- 4x DDR5 UDIMM, up to 5600 MT/s, Max. 192GB (Non-ECC)
- 2x Broadcom 10GbE LAN (SFP+), 2x GbE LAN
- Dual 4K Display: 1x DP, 1x HDMI
- 2x PCIe x16 Gen 5, 1x PCIe x4 (Open End), 1x PCIe x1
- 2x M.2 M Key, 1x M.2 E Key
- 2x 2.5" SATA SSD Drive Bays (Support RAID 0,1)
- 6x USB 3.2 Gen 2 (Rear), 2x USB 2.0 (Front)
- Optional Out-of-Band Management
- 850W Single Power Supply
- Support TPM 2.0
- UL 62368 Ed. 3, CE, FCC Class B (pending)

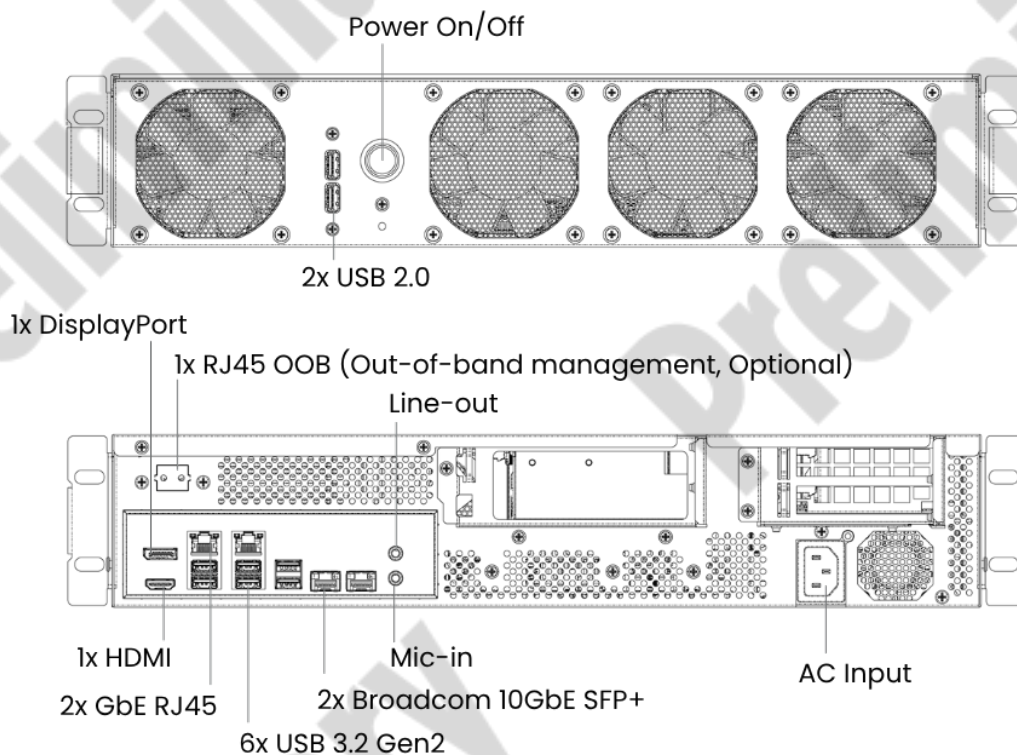


Specifications

System	
Processor	Support AMD Ryzen™ 9000/ 7000 Series Desktop Processors & EPYC 4005/ 4004 (Max 170W TDP): • AMD Ryzen™ 9 9950X • AMD Ryzen™ 9 7950X • AMD EPYC™ 4565P • AMD EPYC™ 4564P
System Chipset	AMD B650
LAN Chipset	GbE 1 & GbE 2: Intel I210AT LAN (Support Wake-on-LAN and PXE) 10GbE 3 & 10GbE 4: Broadcom BCM57412 LAN (Support PXE)
Audio Codec	Realtek ALC897-VA2-CG
System Memory	4x 288-pin Dual-Channel DDR5 UDIMM, Max. up to 192GB (Non-ECC) • EPYC 4005 / Ryzen 9000: Up to 5600 MT/s (1DPC), 3600 MT/s (2DPC) • EPYC 4004 / Ryzen 7000: Up to 5200 MT/s (1DPC), 3600 MT/s (2DPC)
Graphics	AMD Radeon Graphics
BIOS	AMI UEFI 256MB SPI Flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0
Display	
Display Port	1x DisplayPort 1.4a Max Resolution: 4096×2304 @60Hz
HDMI	1x HDMI 2.0 Max Resolution 4096 x 2304 @60Hz
Multiple Display	2x Independent Displays
Storage	
M.2 M-Key	2x M.2 M-Key (2280, PCIe x4) Support NVMe Storage (1x M.2 M-Key shared with PCIe #4 Slot)
SSD/HDD	2x 2.5" Internal SATA SSD Drive Bays (15mm) Support RAID 0,1
Expansion	
M.2 E-Key	1x M.2 E-Key Type: 2230 (Support PCIe x1 + USB 2.0; Support CNVi) Devices Supported: Intel® AX210 Wi-Fi 6E & BT-5.1
PCIe	PCIe Slot from Left to right: #1 Slot: PCIe x16 Physical Slot (x16 Lane or x8 Lane) #2 Slot: PCIe x4 Physical Slot (x1 Lane, Open End) #3 Slot: PCIe x16 Physical Slot (No Signal or x8 Lane) #4 Slot: PCIe x4 Physical Slot (x4 Lane, Open End, shared with M.2 M-Key Slot)
Card Dimension	N/A
I/O	
Audio	Line-out/Mic-in
LAN	2x GbE RJ45 2x Broadcom 10GbE SFP+
OOB	1x RJ45 (Optional)
USB	6x USB 3.2 Gen2 (10 Gbps, Rear) 2x USB 2.0 (Front)
Others	1x Power Switch with Blue LED 1x Recovery Button 1x Reset Button 1x CMOS Battery 1x Buzzer

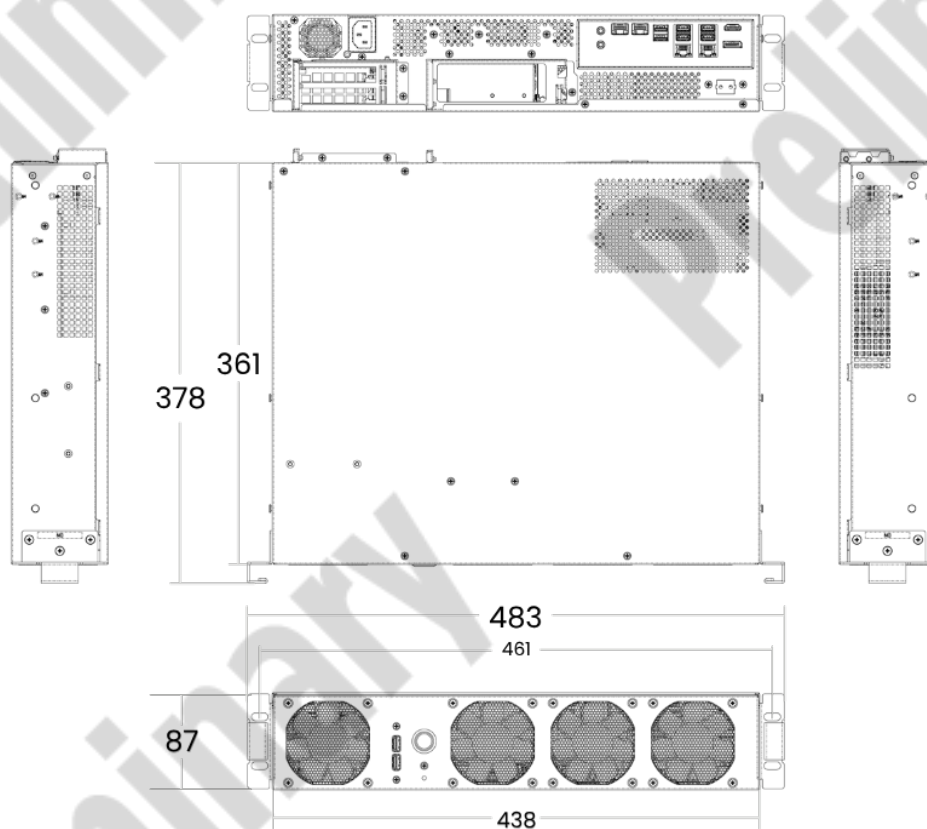
Internal I/O	
USB	2x USB 2.0 2x USB 3.2 Gen 1
Operating System	
Windows	Windows 11 22H2 GAC (64-Bit)
Linux	Linux Kernel 5.x Ubuntu 22.04.4 LTS
Power	
Power Mode	AT, ATX (Default ATX)
Power Supply	1x 850W Single Power Supply AC: 115 to 230 V
Power Connector	IEC 60320 C14
System Cooling	
Fan	1x CPU Fan Cooler 4x Internal 8038 Fans
Environment	
Operating Temperature	0°C to 35°C with 0.6 m/s airflow
Storage Temperature	-20°C to 80°C
Relative Humidity	10% to 95% (non-condensing)
Certification	UL 62368 Ed. 3, CE, FCC Class B (pending)
Vibration	With SSD: 1 Grms (5 - 500 Hz, 0.5 hr/axis)
Shock	With SSD: NA-G half-sin 11ms
Physical	
Form Factor	2U
Dimensions (WxDxH)	TBD
Weights	TBD
Construction	Heavy Duty Metal
Mounting Options	Rackmount

External I/O Mechanical Layout



Dimension

Unit: mm



Compliances and Standards

Vibration	With SSD: 1 Grms (5 - 500 Hz, 0.5 hr/axis) IEC60068-2-64:2008 Designed to comply with MIL-STD-810H Method 514.8 Procedure I
Shock	With SSD: NA-G half-sin 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810H Method 516.8 Procedure I
Operating Temperature	0°C to 35°C with 0.6 m/s airflow IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMC	- FCC Class B - CE - ICES-003 - UKCA - Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	- UL Safety: UL62368-1, 4th Ed Edition - Test procedure: CB Scheme - Standard: IEC 62368-1:2024

Available Models

Model No.	Description
LLM-2U-AM5	2U Edge AI Rackmount Server with AMD Ryzen™ 9000/7000 Processors & EPYC 4004/4005, B650 Chipset

Optional Accessories

Model No.	Description
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00003	Power Cord, Japanese Type, 180cm
1-TPCD00005	Power Cord, 3-pin US Type, 180cm

Packing List

1x LLM-2U-AM5 Edge AI Rackmount Server
1x CPU Fan Cooler
1x Power Cord