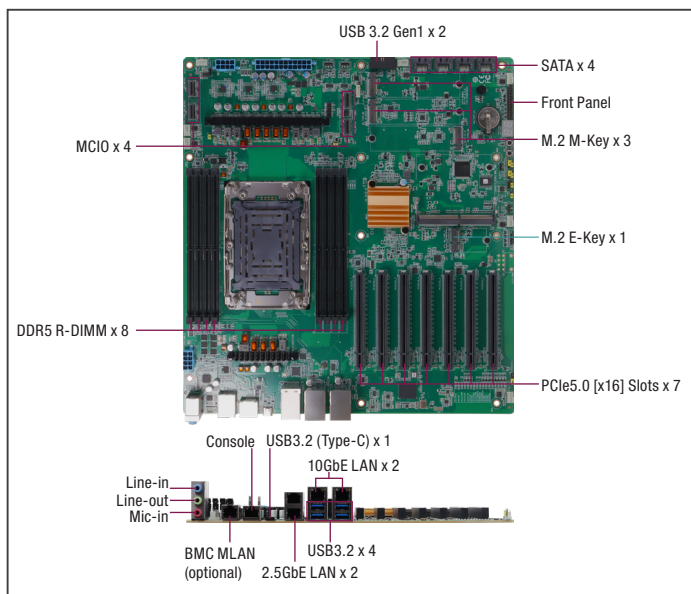


EATX-W890A PRELIMINARY

Workstation Motherboard with Intel® Xeon® 600 processors for Workstation with Intel® W890 Chipset



Features

- Intel® Xeon® 600 processors for Workstation
- DDR5 6400MT/s R-DIMM, up to 8 Slots, Max. 2TB
- Up to PCIe Gen 5 [x16] x 7
- M.2 M-Key x 3, M.2 E-Key x 1
- MCI0 x 4
- Rear: USB 3.2 (Type-A) x 4, USB 3.2 (Type-C) x 1
- Internal: USB 3.2 (Vertical Type-C) x 2, USB 3.2 (Gen1) x 2
- SATA 6Gb/s x 4 with RAID 0, 1, 5, 10 support
- 10GbE LAN x 2, 2.5GbE LAN x 2, BMC MLAN x 1 (optional)
- Remote Management: BMC Module (optional)



Audio I/O	Audio Jack x 3: Line-in, Mic-in, Line-out (5.1 CH HD Audio)
LAN I/O	RJ-45 (10GbE) x 2, RJ-45 (2.5GbE) x 2
Management Port	Management LAN x 1 (BMC, Optional)
Display Port	Via VGA(DB-15) output (from BMC module, optional)
Console Port	SIO COM Port (via RJ-45) x 1
Serial Port	—
PS/2 Port	—
Others	—

Internal I/O Connectors

Storage	SATA 6Gb/s x 4, RAID 0, 1, 5, 10 supported MCI0 x 4 (PCIe Gen 4 [x4], Gen 5 [x4]), RAID 0,1 supported M.2 2280 M-Key x 1 (PCIe Gen 4 [x4]) M.2 2280 M-Key x 2 (PCIe Gen 5 [x4]), RAID 0, 1, 10 supported; Intel® VROC supported *With Mainstream CPU, optional by BOM: SATA 6Gb/s x 4, RAID 0, 1, 5, 10 supported MCI0 x 2 (PCIe Gen 4 [x4]), RAID 0,1 supported M.2 2280 M-Key x 1 (PCIe Gen 4 [x4])
USB	USB 3.2 Gen 2x1 (Vertical Type-C) x 2 (USB only; 5V/3A) USB 3.2 Gen 1 x 2 via 2x10-Pin Header x 1
Display I/O	—
Audio I/O	—
Serial Port	—
PS/2 Port	—
Parallel Port	—
Front panel	1 x 24 pin FPC: Power Switch, HDD Activity, LAN Activity LED, Watchdog, Temperature Alarm LED, Fan Failure LED, Chassis Intrusion, System Fault LED, SMBus 1 x ATX compatible Front panel Connector (pin headers 2,54 mm pitch, 2x12 pin)
BMC_SMB Header	1
PMBus header	1
IPMB Header	1
Clear CMOS	1
FAN	CPU Fan Header x 1 System Fan Header x 6
Others	VROC Key header x 1 1*2pin power connector x 1 BMC Module socket x 1, BMC COM header x 1

LED Indicators

Standby PWR LED 5vsb	1
PWR LED 5v	1
Port 80 LED	1
Fan Fail LED	5

Management

BMC	BMC Module socket x 1
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Security

Security	TPM 2.0 Secure Boot Silicon Root of Trust
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OS

OS Support	Windows 11 25H2 Ubuntu Linux (version: 22.04 LTS) RHEL 9.6 (Kernel 5.14.0-570.12.1.el9_6)
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Specifications

System	
Processor	Intel® Xeon® 600 processors for Workstation, Socket E2, LGA 4710-2 Intel® Xeon® 690/670 Series Processors, TDP up to 350W
Chipset	Intel® W890 Chipset
Memory	DDR5 R-DIMM, ECC, 1DPC, 128GB per DIMM, 1.1V DDR5 6400MT/s x 8, Max. 2TB *With Mainstream CPU, optional by BOM: DDR5 6400MT/s x 4, Max. 1TB
Ethernet	Intel® Ethernet Controller E610-XAT2, 10GbE x 2 Intel® Ethernet Controller I226-LM, 2.5GbE x 2
Audio	Realtek® ALC897
TPM	TPM 2.0 onboard
Expansion Slots	PCIe Gen 5 [x16] x 7 Note: Slots 2 & 6 are non-functional when used with Mainstream CPU SKUs M.2 2230 E-Key x 1 (PCIe Gen 4 [x1]/USB 2.0/CNVi)
BIOS	AMI 512Mb SPI Flash ROM, supports BIOS recovery, BIOS Backup
WatchDog Timer	Yes
H/W Monitor	
Temperature	CPU, CPU Power MOSFET, Memory, PCH, PCIe Slot, MB
Fan	Fan Tachometer via IPMI, CPU Smart Fan (enables automatic chassis fan speed adjustment based on CPU temperature)
Voltage	CPU: VCCIN, VCCFA_EHV, VNN_MAIN, VCCFA_EHV_FIVR, VCCINF, VCCD_HV0, VCCD_HV1, V3P3_CPU_VR_OUT, V12S_CPU PCH: V3P3A, VOP82A, VRTC DIMM: 12V_DIMM System: V5DSW, V3P3DSW, V1P8A, V12S, V5S, V3P3S
Smart Fan Control	CPU Fan/System Fan
Wake On LAN/ PXE	—
Power State	TBD
Graphics	
Controller	—
Graphics Multi Display	—
VGA	—
DVI	—
HDMI	—
Display Port	Via VGA(DB-15) output (from BMC module, optional)
Backlight Control	—
Environment & Power & ME	
Battery	Lithium Battery
Power Requirement	1x24-pin ATX Main Power Connector 2x8-pin ATX 12V Power Connectors
Operation Temperature	32°F ~ 140°F (0 ~ 60°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Operation Humidity	20 ~ 90% relative humidity, non-condensing
Certificate	CE & FCC Class A
Form Factor	EATX: 12" x 13" (305mm x 330mm)
Weight	TBD
MTBF (Hours)	TBD
Rear Panel I/O Ports	
USB	USB 3.2 Gen 2x1 (Type-C) x 1 (USB only; 5V/3A) USB3.2 Gen 2x1 (Type-A) x 4

