E3C256D4U-2L2T

- Micro-ATX (9.6" x 9.6")
- Supports Intel® Xeon® E-2300 and 10th Gen Intel® Pentium® series processors
- 4 DIMM slots (2DPC), supports DDR4 ECC/non-ECC UDIMM
- 1 PCIe4.0 x16, 1 PCIe4.0 x4, 1 PCIe3.0 x1
- Supports 1 M.2 (PCIe3.0 x4 or SATA 6Gb/s), 1 M.2 (PCIe3.0 x4)
- 8 SATA 6Gb/s
- 2 RJ45 (10GbE) by Intel® X710-AT2
- 2 RJ45 (1GbE) by Intel® i210
- VGA, HDMI
- Remote Management (IPMI)

HDMI™ (High-Definition Multimedia Interface)
This motherboard supports HDMI™ (High-Definition Multimedia Interface) which is an interface standard for transferring uncompressed video data and delivering multi-channel audio through a single cable. Both video and audio data signals transferred through the HDMI™ interface are digital without being converted into analog, therefore it delivers the richest pictures and the most realistic sounds.

Specifications

Physical Status	
Form Factor	Micro-ATX
Dimensions	9.6" x 9.6" (244 mm x244 mm)
Processor System	
CPU	Supports Intel® Xeon® E-2300 and 10th Gen Intel® Pentium® series processors
Socket	Single Socket H5 (LGA1200)
Chipset	Intel® C256
System Memory	
Supported DIMM Quantity	4 DIMM slots (2DPC)
Supported Type	Supports DDR4 288-pin ECC/non-ECC UDIMM
Max. Capacity per DIMM	ECC/non-ECC UDIMM: up to 32GB
Max. DIMM Frequency	ECC/non-ECC UDIMM: max. 3200*MHz *Up to DDR4 2666MHz when installing 10th Gen Intel® Pentium® Series Processors
Voltage	1.2V
PCIe Expansion Slots (SLOT7 close to CPU)	
PCIe x 16	SLOT6: PCIe4.0* x16 [CPU] *When installing 10th Gen Intel® Pentium® Series Processors, SLOT6 supports PCIe3.0 only and SLOT4 will not function
PCIe x 4	SLOT4: PCIe4.0* x4 [CPU]
PCIe x 1	SLOT7: PCIe3.0 x1 [PCH]
Other PCIe Expansion Connectors	
M.2 slot	1 M-key* (PCIe3.0 x4 or SATA 6Gb/s); support 22110/2280/2260 form factor [PCH] 1 M-key (PCIe3.0 x4); support 2280/2260 form factor [PCH] *SATA0 will be disabled when M2_1 populated with SATA device
SATA/SAS Storage	
PCH Built-in Storage	Intel® C256 (8 SATA 6Gb/s; RAID 0/1/5/10): 7 SATA 7-pin, 1 SATA DOM or 1 M.2
Ethernet	
Additional GbE Controller	Intel® X710-AT2: 2 RJ45 (10GbE) Intel® i210: 2 RJ45 (1GbE)
Server Management	
BMC Controller	ASPEED AST2500

IPMI Dedicated GLAN	1 x Realtek RTL8211E for dedicated management GLAN
Graphics	
Controller	ASPEED AST2500
VRAM	DDR4 256MB
Rear I/O	
UID Button/LED	1 button w/ LED
VGA Port	1 DB15
Serial Port	1 DB9
USB 3.2 Gen1 Port	4 Type-A (USB3.2 Gen1)
RJ45	2 RJ45 (10GbE), 2 RJ45 (1GbE)
Dedicate LAN	1 dedicated IPMI LAN port
HDMI	1 HDMI
Internal Connector/Headers	
Power Connector	1 (24-pin, ATX main power), 1 (8-pin, ATX 12V)
Auxiliary Panel Header	1 (18-pin): chassis intrusion, system fault LED, LAN1/LAN2 activity LED, locate, SMBus
System Panel	1 (9-pin): power switch, reset switch, system power LED, HDD activity LED
VGA header	1
Speaker Header	1
Buzzer	1
Fan Header	7 (4-pin)
Thermal Sensor Header	1
TPM Header	1 (13-pin, SPI)
SGPIO Header	1
SMBus header	1
PMBus header	1
IPMB Header	1
Clear CMOS	1 (contact pads)
ME/SPS Recovery	1
Front Lan LED Connector	1
USB 3.2 (Gen1) Header	1 (19-pin, 2 USB3.2 Gen1)
USB 2.0 Header	1 (9-pin, 2 USB2.0)
NMI Header	1
LED Indicators	
Standby PWR LED 5vsb	1
80 Debug Port LED	1
Fan Fail LED	7
BMC heartbeat LED	1
System BIOS	
BIOS Type	AMI UEFI BIOS; 256 Mb (32MB) SPI Flash ROM
BIOS Features	Plug and Play, ACPI 6.2 compliance wake up events, SMBIOS 3.3, ASRock Rack instant flash
Hardware Monitor	
Temperature	CPU, MB, Card side, TR1
Fan	Fan Tachomete, CPU Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature), Multi-Speed Control
Voltage	+12V, +5V, +3.3V, CPU Vcore, DRAM,V1.0M,+BAT, 3VSB, 5VSB
Supported OS	
OS	Microsoft® Windows® : Server 2019 (64 bit) Server 2022 (64 bit) Linux : RedHat Enterprise Linux Server 8.6 (64 bit) / 8.3 (64 bit) CentOS 8.5 (64 bit) / 8.3 (64 bit) SUSE Enterprise Linux Server 15 SP3 (64 bit) / 15 SP2 (64 bit) Ubuntu 21.10 (64 bit) Hypervisor :

	VMWare® ESXi 7.0U3d * Supports UEFI BOOT only
Environment	
Temperature	Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C
Humidity	Non operation humidity: 20% ~ 90% (Non condensing)

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