P/N: 15G065084100AK V1.0

Quick Installation Guide

E3C236D4M-4L

ASRock Rack
www.asrockrack.com

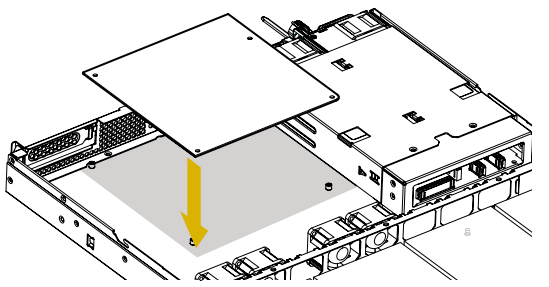
The server board User's Manual is available for download from the ASRock Rack's official website at http://www.asrockrack.com.

Take note of the following precautions before you install server board components or change any server board settings.

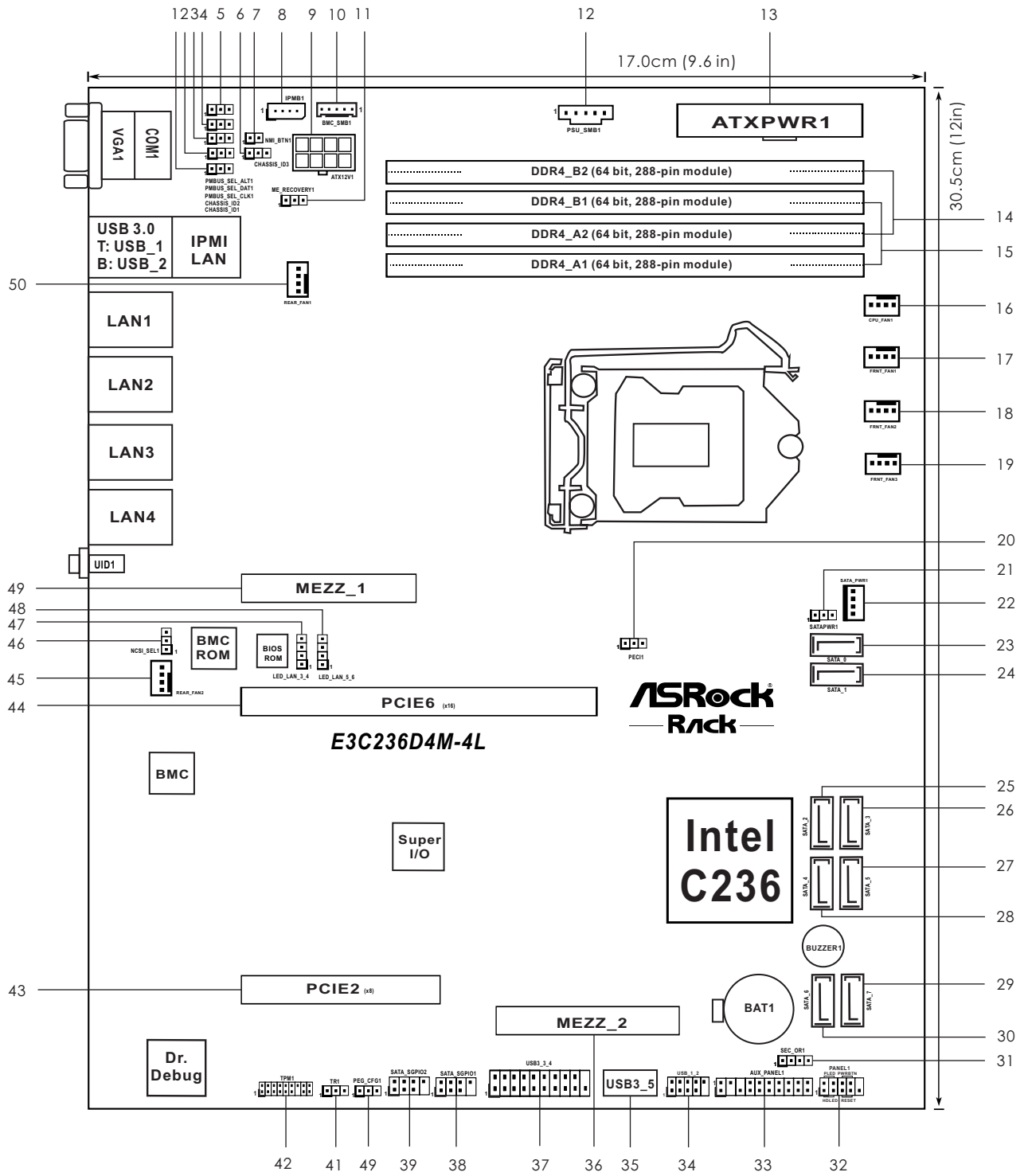
1. Unplug the power cord from the wall socket before touching any components.
2. To avoid damaging the server board's components due to static electricity, NEVER place your server board directly on the carpet or the like. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle the components.
3. Hold components by the edges and do not touch the ICs.
4. Whenever you uninstall any component, place it on a grounded anti-static pad or in the bag that comes with the component.
5. When placing screws into the screw holes to secure the server board to the chassis, please do not over-tighten the screws! Doing so may damage the server board.

1 Install the Server Board

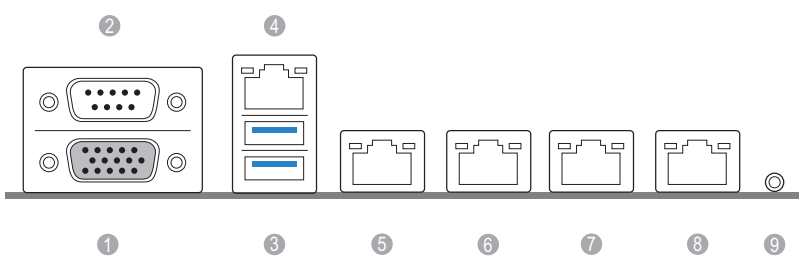
1. Insert the server board into the chassis.
2. Affix the screws clockwise into the mounting holes in all of the corners of the server board.
   Do not over-tighten the screws



2 Motherboard Layout

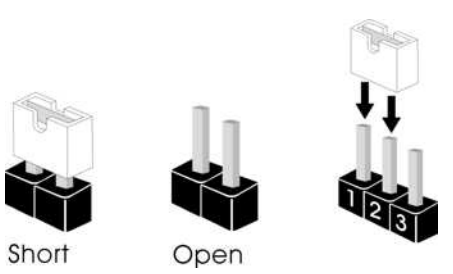


3 I/O Panel



No.	Description	No.	Description
1	VGA Port (VGA1)	6	LAN RJ-45 Port (LAN2)
2	Serial Port (COM1)	7	LAN RJ-45 Port (LAN3)
3	USB 3.0 Ports (USB3_1_2)	8	LAN RJ-45 Port (LAN4)
4	LAN RJ-45 Port (IPMI_LAN)	9	UID Switch (UID1)
5	LAN RJ-45 Port (LAN1)		

4 Jumper Cap On/Off



When the jumper cap is placed on the pins, the jumper is "Short". If no jumper cap is placed on the pins, the jumper is "Open".

The illustration shows a 3-pin jumper whose pin1 and pin2 are "Short" when a jumper cap is placed on these 2 pins.

No.	Description
1	Chassis ID1 Jumper (CHASSIS_ID1)
2	Chassis ID2 Jumper (CHASSIS_ID2)
3	PMBUS Mode Jumper (PMBUS_SEL_CLK1)
4	PMBUS Mode Jumper (PMBUS_SEL_DAT1)
5	PMBUS Mode Jumper (PMBUS_SEL_ALT1)
6	Chassis ID3 Jumper (CHASSIS_ID3)
7	Non Maskable Interrupt Button (NMI_BTN1)
8	Intelligent Platform Management Bus Header (IPMB1)
9	ATX 12V Power Connector (ATX12V1)
10	BMC SMBus Header (BMC_SMB1)
11	ME Recovery Jumper (ME_RECOVERY1)
12	PSU SMBus (PSU_SMB1)
13	ATX Power Connector (ATXPWR1)
14	2 x 288-pin DDR4 DIMM Slots (DDR4_A2, DDR4_B2, Blue)
15	2 x 288-pin DDR4 DIMM Slots (DDR4_A1, DDR4_B1, White)
16	CPU Fan Connector (CPU_FAN1)
17	Front Fan Connector (FRNT_FAN1)
18	Front Fan Connector (FRNT_FAN2)
19	Front Fan Connector (FRNT_FAN3)
20	CPU PECI Mode Jumper (PECI1)
21	SATA DOM Power Jumper (SATAPWR1)
22	SATA DOM Power Header (SATA_PWR1)
23	SATA3 DOM Connector (SATA_0), Red
24	SATA3 Connector (SATA_1)
25	SATA3 Connector (SATA_2)
26	SATA3 Connector (SATA_3)
27	SATA3 Connector (SATA_5)
28	SATA3 Connector (SATA_4)
29	SATA3 Connector (SATA_7)
30	SATA3 Connector (SATA_6)
31	Flash Descriptor Security Override Jumper (SEC_OR1)
32	System Panel Header (PANEL1)
33	Auxiliary Panel Header (AUX_PANEL1)
34	USB 2.0 Header (USB_1_2)
35	Vertical Type A USB 3.0 (USB3_5)
36	Mezzaine Card Slot 2 (MEZZ_2)
37	USB 3.0 Header (USB3_3_4)
38	SATA SGPIO Connector (SATA_SGPIO1)
39	SATA SGPIO Connector (SATA_SGPIO2)
40	PCI Express Graphics Configuration Jumper (PEG_CFG1)
41	Thermal Sensor Header (TR1)
42	TPM Header (TPM1)
43	PCIE Card Slot 2 (PCIE2) (x8, from PCH)
44	PCIE Card Slot 6 (PCIE6) (x16, from CPU)
45	Rear Fan Connector (REAR_FAN2)
46	NCSI Mode Jumper (NCSI_SEL1)
47	LAN LED Connector (LED_LAN_3_4)
48	LAN LED Connector (LED_LAN_5_6)
49	Mezzaine Card Slot 1 (MEZZ_1)
50	Rear Fan Connector (REAR_FAN1)

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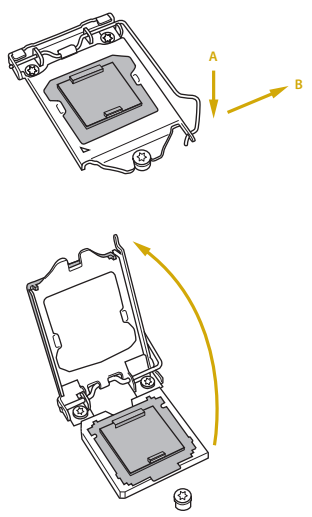
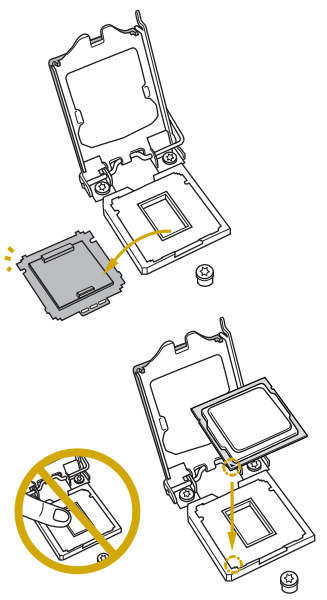
5 Install the Processor

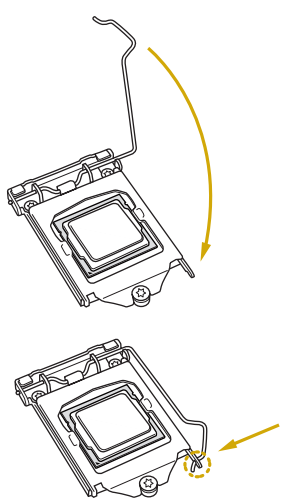
1. Open the socket levers and the CPU socket cover. Remove the CPU protection cap.



2. Install the processor and close the socket cover.



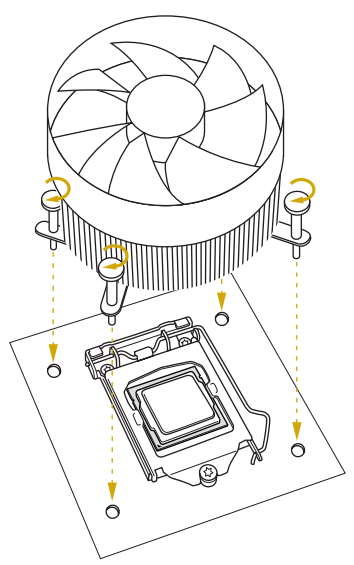
3. Close the socket levers.



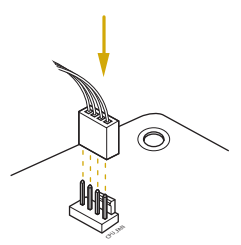
We recommend using the CPU Installation tool to avoid CPU pin-bent problem.

6 Install the CPU Fan and Heatsink

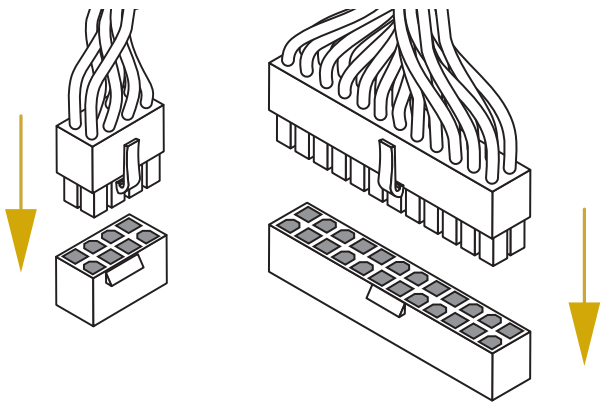
1. Apply the thermal grease. Install the CPU fan and heatsink and secure the screws.



2. Connect the CPU fan to the CPU FAN connector.

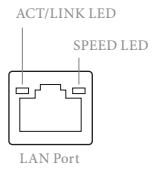


7 Install the Power Cables



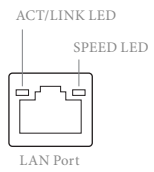
8 LAN Port LED Indications

IPMI LAN Port



Activity / Link LED		Speed LED	
Status	**Description**	**Status**	**Description**
Off	No Link	Off	10M bps connection or no link
Blinking Green	Data Activity	Off	100M bps connection
On	Link	Yellow	1Gbps connection

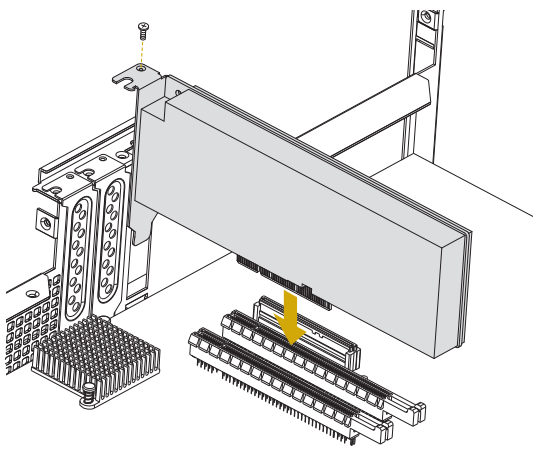
1G LAN Port



Speed LED		Activity / Link LED	
Status	**Description**	**Status**	**Description**
Off	10Mbps connection or no link	Off	No Link
Yellow	100Mbps connection	Blinking Green	Data Activity
Green	1Gbps connection	On	Link

9 Install the PCIE Card

1. Remove the bracket facing the slot that you intend to use. Keep the screw for later use.
2. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
3. Fasten the card to the chassis with the screw.



Slot	Generation	Mechanical	Electrical	Source
PCIE 6	3.0	x16	x16	CPU
PCIE 2	3.0	x8	x4	PCH

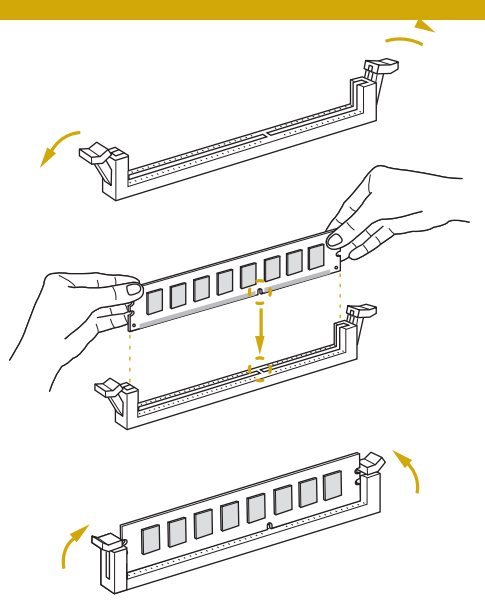
	PCIE6
No mezzanine card	x16
MEZZ_1 is populated	x8
MEZZ_2 is populated	N/A

10 Dr. Debug

Code	Description
00	Please check if the CPU is installed correctly and then clear CMOS.
0d	Problem related to memory, VGA card or other devices. Please clear CMOS, re-install the memory and VGA card, and remove other USB, PCI devices.
01 - 54 (except 0d), 5A- 60	Problem related to memory. Please re-install the CPU and memory then clear CMOS. If the problem still exists, please install only one memory module or try using other memory modules.
55	The Memory could not be detected. Please re-install the memory and CPU. If the problem still exists, please install only one memory module or try using other memory modules.
61 - 91	Chipset initialization error. Please press reset or clear CMOS.
92 - 99	Problem related to PCI-E devices. Please re-install PCI-E devices or try installing them in other slots. If the problem still exists, please remove all PCI-E devices or try using another VGA card.
A0 - A7	Problem related to IDE or SATA devices. Please re-install IDE and SATA devices. If the problem still exists, please clear CMOS and try removing all SATA devices.
b0	Problem related to memory. Please re-install the CPU and memory. If the problem still exists, please install only one memory module or try using other memory modules.
b4	Problem related to USB devices. Please try removing all USB devices.
b7	Problem related to memory. Please re-install the CPU and memory then clear CMOS. If the problem still exists, please install only one memory module or try using other memory modules.
d6	The VGA could not be recognized. Please clear CMOS and try re-installing the VGA card. If the problem still exists, please try installing the VGA card in other slots or use other VGA cards.
d7	The Keyboard and mouse could not be recognized. Please try re-installing the keyboard and mouse.
d8	Invalid Password.
FF	Please check if the CPU is installed correctly and then clear CMOS.

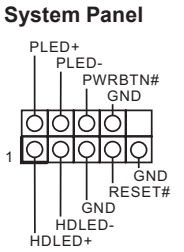
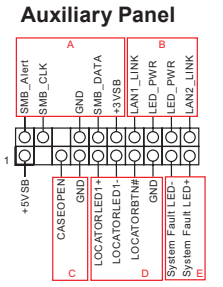
11 Install the Memory

1. Unlock a DIMM slot by pressing the module clips outward.
2. Insert the memory module.
3. Lock the clips.



12 Headers

System Panel



Auxiliary Panel