



P/N: 15G065045001AK V1.1

## Quick Installation Guide



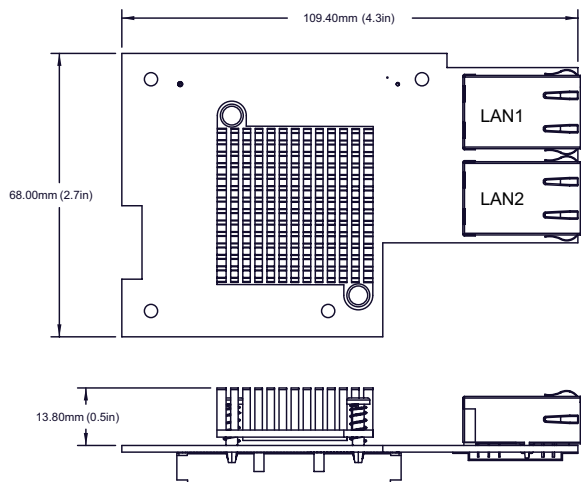
# Mezzanine Card Series

## Introduction

Thank you for purchasing ASRock Rack mezzanine card, a reliable mezzanine card produced under ASRock Rack's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock Rack's commitment to quality and endurance.

| Model  | Dimension                         | Interface / Connector                      | LAN / Storage Controller                         |
|--------|-----------------------------------|--------------------------------------------|--------------------------------------------------|
| M350   | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | Gigabit LAN<br>10/100/1000 Mb/s / 2 x RJ45 | 1 x Intel® i350                                  |
| M540   | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10G/1G/100M/s / 2 x RJ45 (10G Base-T)      | 1 x Intel® X540                                  |
| M599   | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10G/s / 2 x SFP+ (Fiber)                   | 1 x Intel® 82599ES                               |
| M350R  | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | Gigabit LAN<br>10/100/1000 Mb/s / 2 x RJ45 | 1 x Intel® i350                                  |
| M540R  | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10G/1G/100M/s / 2 x RJ45 (10G Base-T)      | 1 x Intel® X540                                  |
| M599R  | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10G/s / 2 x SFP+ (Fiber)                   | 1 x Intel® 82599ES                               |
| M710   | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10/40Gb/s / 2 x QSFP+ 40Gb/s               | 1 x Intel® XL710-AM2                             |
| M710S  | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10/40Gb/s / 1 x QSFP+ 40Gb/s               | 1 x Intel® XL710-AM1                             |
| MCX3   | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | 10/40Gb/s / 2 x QSFP+ 40Gb/s               | 1 x Mellanox<br>ConnectX®-3 Pro EN               |
| M3008S | 2.7" x 4.3"<br>(6.8 cm x 10.9 cm) | SAS 12G / 2 x SAS HD 4i (8 ports)          | AvagoSAS3008 PowerPC<br>476 controller @ 1.2 GHz |

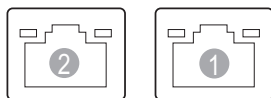
# M350



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

## Layout

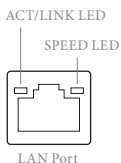


- 1 LAN RJ-45 Port (LAN1)
- 2 LAN RJ-45 Port (LAN2)

## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

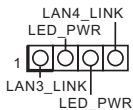


### Speed LED

| Status | Description        |
|--------|--------------------|
| Off    | 10Mbps connection  |
| Orange | 100Mbps connection |
| Green  | 1Gbps connection   |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

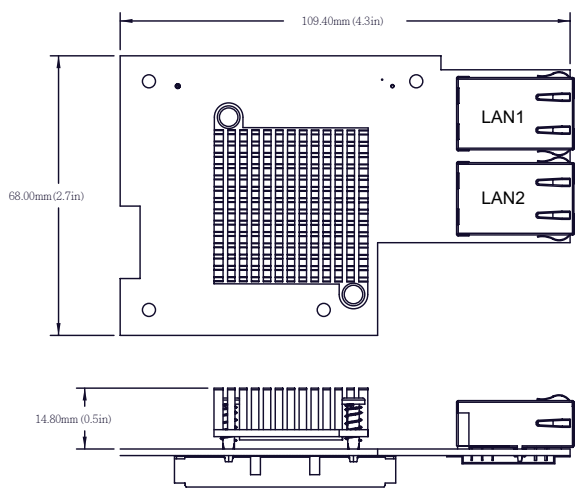


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

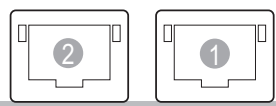
# M540



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

## Layout

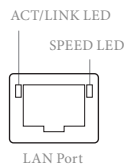


- 1 LAN RJ-45 Port (10G Base-T)(LAN1)
- 2 LAN RJ-45 Port (10G Base-T)(LAN2)

## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

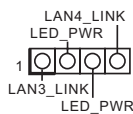


### Speed LED

| Status | Description        |
|--------|--------------------|
| Off    | 10Mbps connection  |
| Orange | 100Mbps connection |
| Green  | 1Gbps connection   |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

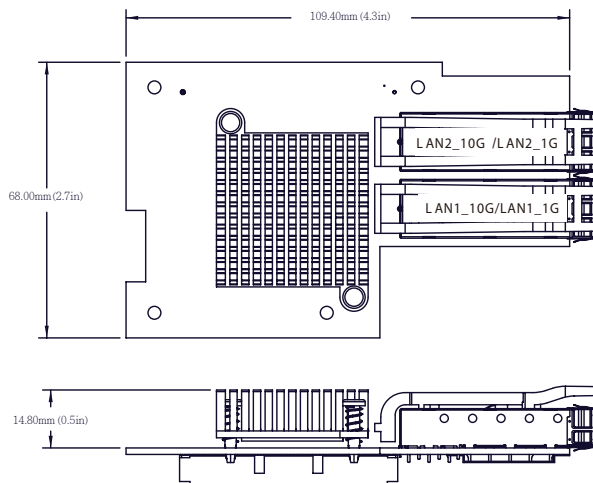


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

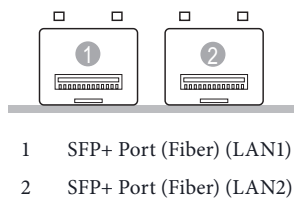
# M599



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

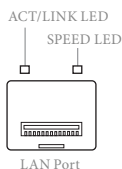
## Layout



## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

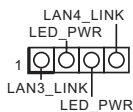


### Speed LED

| Status | Description        |
|--------|--------------------|
| Off    | 10Mbps connection  |
| Orange | 100Mbps connection |
| Green  | 1Gbps connection   |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

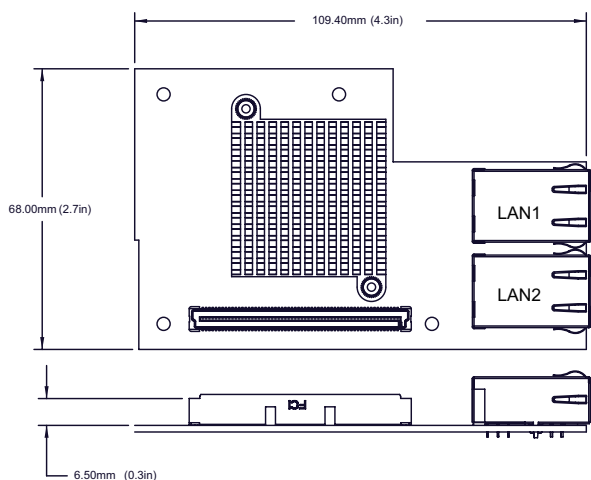


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

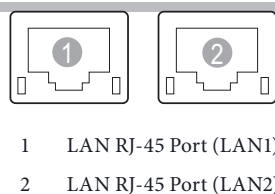
# M350R



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

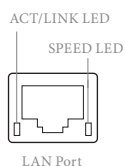
## Layout



## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

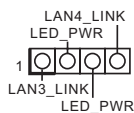


### Speed LED

| Status | Description        |
|--------|--------------------|
| Off    | 10Mbps connection  |
| Orange | 100Mbps connection |
| Green  | 1Gbps connection   |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

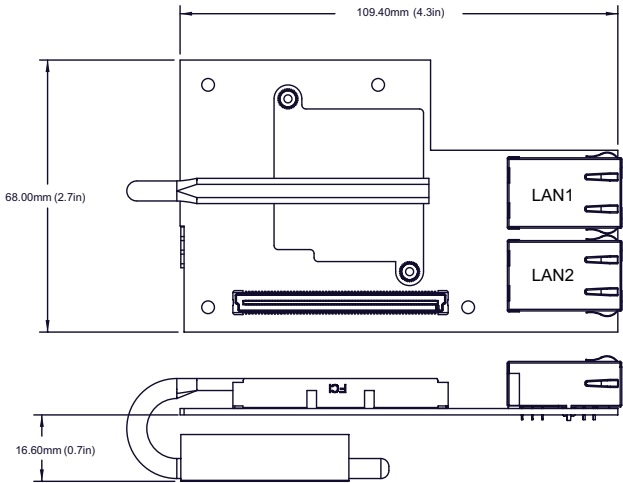


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

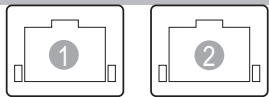
# M540R



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

## Layout

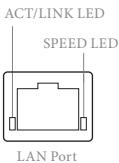


- 1 LAN RJ-45 Port (10G Base-T)(LAN1)
- 2 LAN RJ-45 Port (10G Base-T)(LAN2)

## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

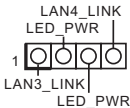


### Speed LED

| Status | Description           |
|--------|-----------------------|
| Off    | 10/100Mbps connection |
| Orange | 1Gbps connection      |
| Green  | 10Gbps connection     |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

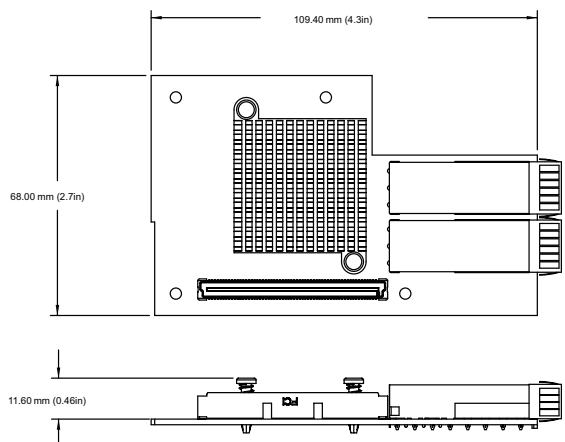


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

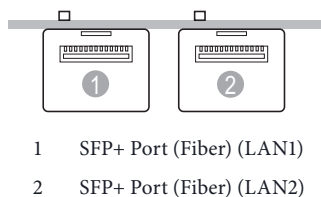
# M599R



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

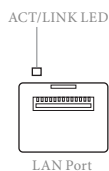
## Layout



## LAN Port LED Indications

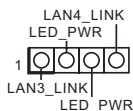
### Activity / Link LED

| Status   | Description       |
|----------|-------------------|
| Off      | No Link           |
| Blinking | 10G Data Activity |
| On       | 10G Link          |



## Onboard Header

Front LAN LED Connector  
(LAN\_LED\_1)

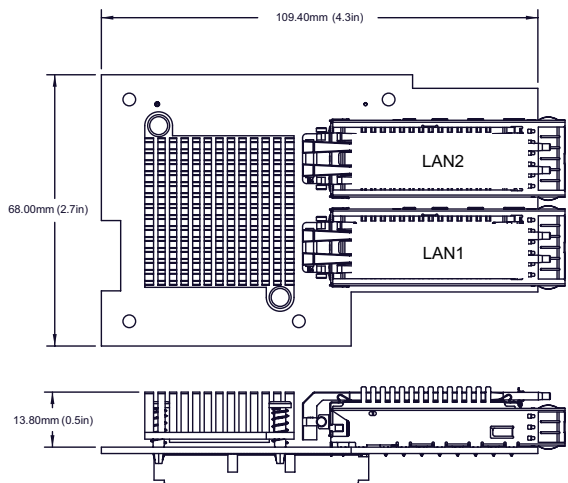


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

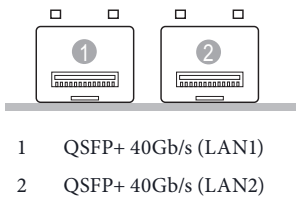
# M710



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

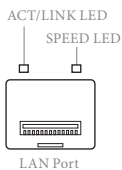
## Layout



## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

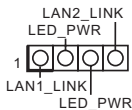


### Speed LED

| Status | Description           |
|--------|-----------------------|
| Off    | 10/100Mbps connection |
| Off    | 1Gbps connection      |
| Green  | 10/40Gbps connection  |

## Onboard Header

Front LAN LED Connector  
(XL\_LAN\_LED)

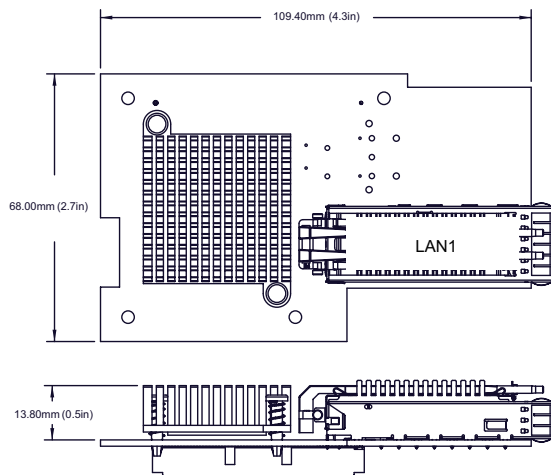


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

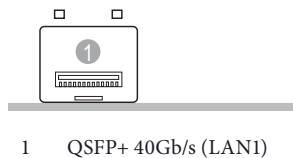
# M710S



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

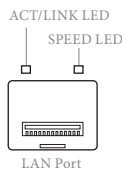
## Layout



## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |
| On       | Link          |

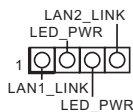


### Speed LED

| Status | Description           |
|--------|-----------------------|
| Off    | 10/100Mbps connection |
| Off    | 1Gbps connection      |
| Green  | 10/40Gbps connection  |

## Onboard Header

Front LAN LED Connector  
(XL\_LAN\_LED)

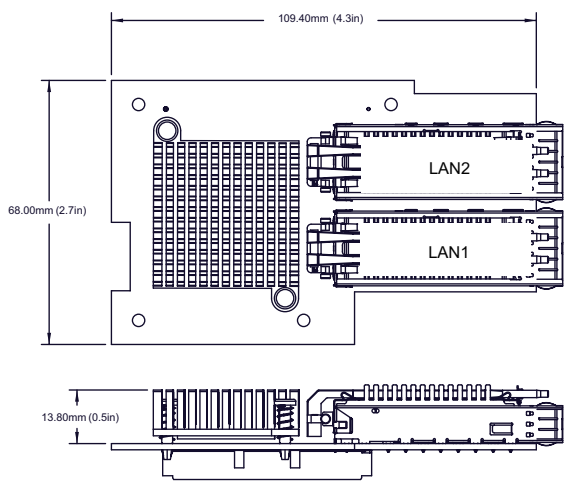


This 4-pin connector is used for the front LAN status indicator.



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

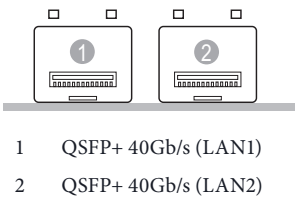
# MCX3



## Package Contents

- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Support CD
- 1 x Quick Installation Guide

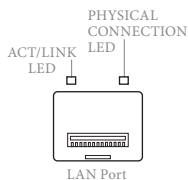
## Layout



## LAN Port LED Indications

### Activity / Link LED

| Status   | Description   |
|----------|---------------|
| Off      | No Link       |
| Blinking | Data Activity |

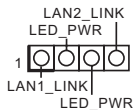


### Physical Connection LED

| Status | Description  |
|--------|--------------|
| On     | Connected    |
| Off    | Disconnected |

## Onboard Header

Front LAN LED Connector  
(LAN\_LED1)

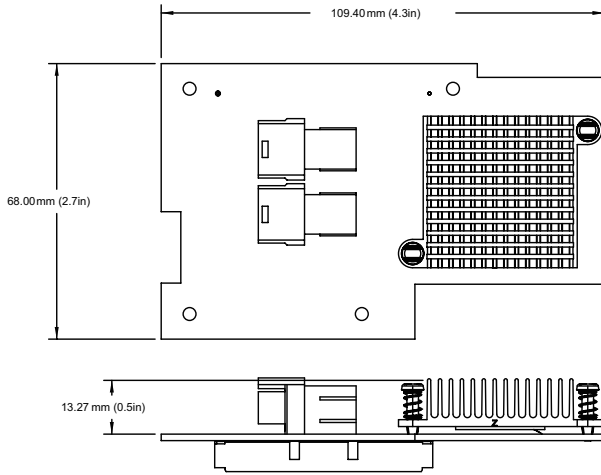


This 4-pin connector is used for the front LAN status indicator.

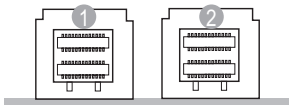


Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

# M3008S



## Layout



- 1 MINI SAS HD (SLI\_SAS4\_7)
- 2 MINI SAS HD (SLI\_SAS0\_3)

## Details

|                     |                                               |
|---------------------|-----------------------------------------------|
| Storage Controller  | AvagoSAS3008 PowerPC 476 controller @ 1.2 GHz |
| Data Transfer Rates | Up to 12Gb/s per port                         |
| Internal Connectors | SAS 12G x8 (2 x SAS HD 4i)                    |

## Support OS

Microsoft® Windows®

- Server 2008 R2 SP1 (64 bit)
- Server 2012 (64 bit)
- Server 2012 R2 (64 bit)

Linux®

- RedHat Enterprise Linux Server 7.0 (64 bit)
- CentOS 7. 0 (64 bit)
- SUSE Enterprise Linux Server 12 ( 64 bit)

## Environment

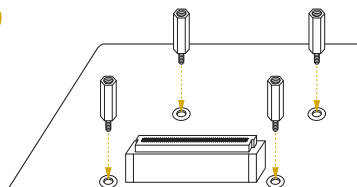
Operating Temperature 0°C ~ 70°C

## Mezzanine Card Installation

Before installing a mezzanine card to a motherboard, remove the motherboard from the chassis. To do so, be sure to power down the system and remove all connected cables first. For more details, refer to the user manual that comes with your system.

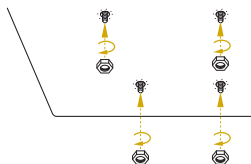
*\*The illustrations are for reference only and may be slightly different from the real products due to different models.*

1



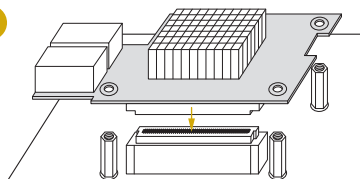
1. Install the four standoffs into the motherboard around the mezzanine card slot.

2



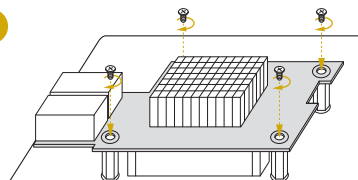
2. Install the four lock nuts on the bolts under the motherboard. Hand-tighten the nuts.

3



3. Gently insert the mezzanine card into the mezzanine card slot on the motherboard.

4



4. Use screws to secure the mezzanine card to the motherboard standoffs.

When the mezzanine card is well installed, horizontally slide the motherboard back to the chassis so the I/O connectors fit through the I/O openings at the rear of the chassis. Well install the motherboard to the chassis with screws. For more details, refer to the user manual that comes with your motherboard.