



P/N: 15G065045002AK V1.2

Quick Installation Guide

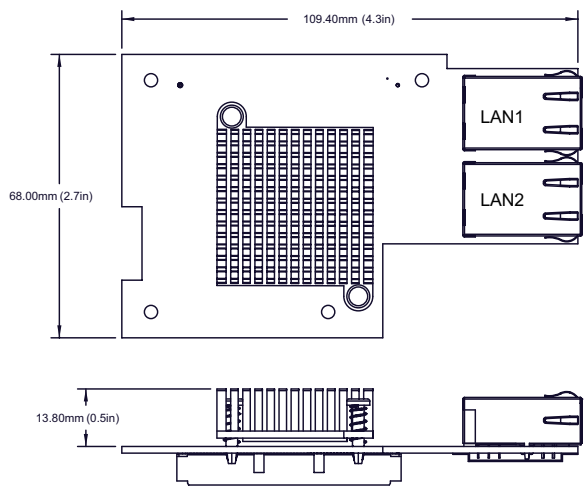
Mezzanine Card Series

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" (6.8 cm x 10.9 cm)	Gigabit LAN 10/100/1000 Mb/s / 2 x RJ45	1 x Intel® i350
M540	2.7" x 4.3" (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" (6.8 cm x 10.9 cm)	10G/s / 2 x SFP+ (Fiber)	1 x Intel® 82599ES
M350R	2.7" x 4.3" (6.8 cm x 10.9 cm)	Gigabit LAN 10/100/1000 Mb/s / 2 x RJ45	1 x Intel® i350
M540R	2.7" x 4.3" (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" (6.8 cm x 10.9 cm)	10G/s / 2 x SFP+ (Fiber)	1 x Intel® 82599ES
M710	2.7" x 4.3" (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" (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" (6.8 cm x 10.9 cm)	10/40Gb/s / 2 x QSFP+ 40Gb/s	1 x Mellanox ConnectX®-3 Pro EN
M41202R	2.7" x 4.3" (6.8 cm x 10.9 cm)	10/40Gb/s / 2 x SFP28+ Connector 25G	1 x Qlogtic 41202
M3008S	2.7" x 4.3" (6.8 cm x 10.9 cm)	SAS 12G / 2 x SAS HD 4i (8 ports)	AvagoSAS3008 PowerPC 476 controller @ 1.2 GHz

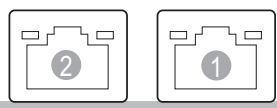
M350



Package Contents

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

Layout

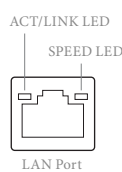


- 1 LAN RJ-45 Port (LAN1)
- 2 LAN RJ-45 Port (LAN2)

LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

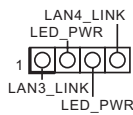


Speed LED

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

Onboard Header

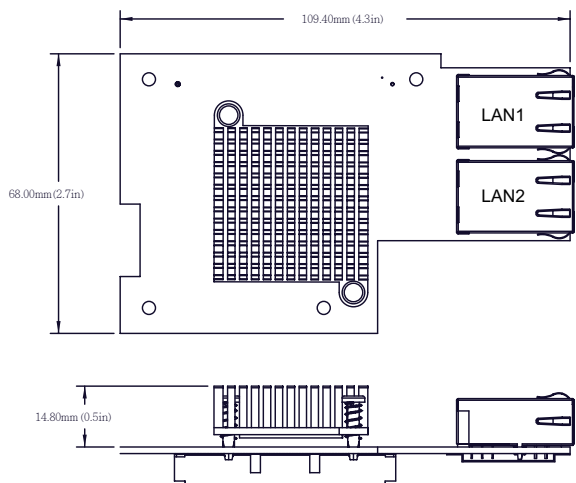
Front LAN LED Connector
(LAN_LED_1)



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.

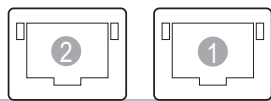
M540



Package Contents

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

Layout

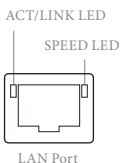


- 1 LAN RJ-45 Port (10G Base-T)(LAN1)
- 2 LAN RJ-45 Port (10G Base-T)(LAN2)

LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

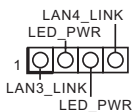


Speed LED

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

Onboard Header

Front LAN LED Connector
(LAN_LED_1)

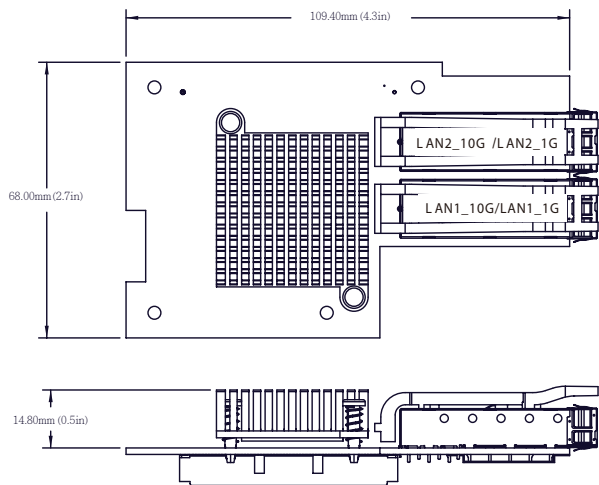


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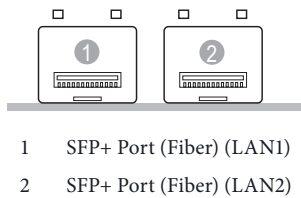
M599



Package Contents

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

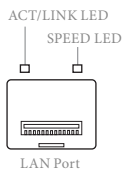
Layout



LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

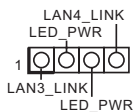


Speed LED

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

Onboard Header

Front LAN LED Connector
(LAN_LED_1)

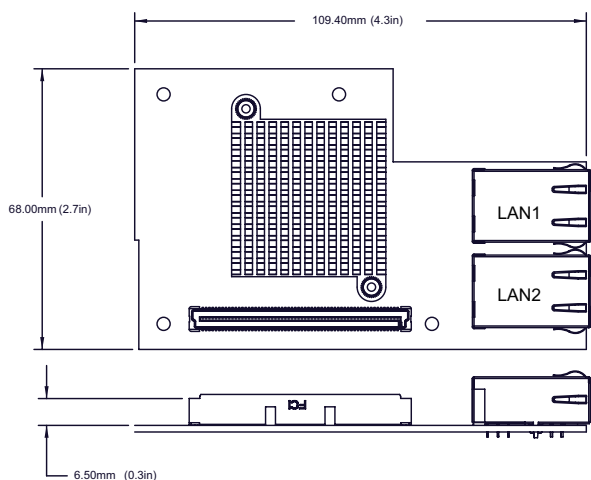


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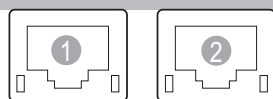
M350R



Package Contents

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

Layout

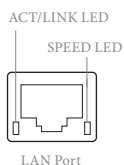


- 1 LAN RJ-45 Port (LAN1)
- 2 LAN RJ-45 Port (LAN2)

LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

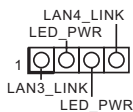


Speed LED

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

Onboard Header

Front LAN LED Connector
(LAN_LED_1)

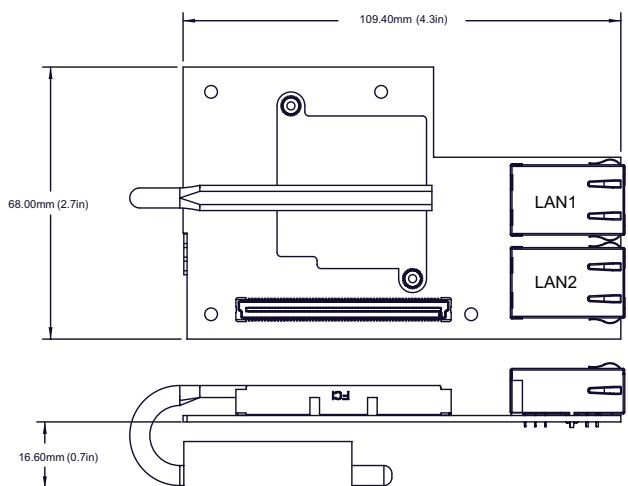


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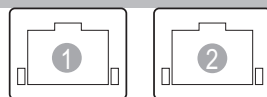
M540R



Package Contents

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

Layout

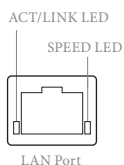


- 1 LAN RJ-45 Port (10G Base-T)(LAN1)
- 2 LAN RJ-45 Port (10G Base-T)(LAN2)

LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

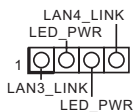


Speed LED

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

Onboard Header

Front LAN LED Connector
(LAN_LED_1)

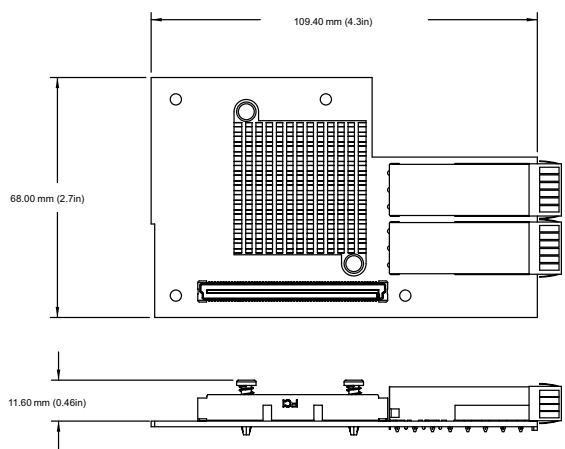


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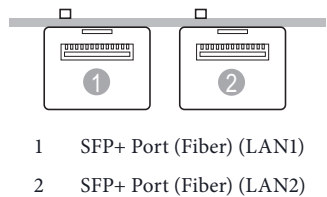
M599R



Package Contents

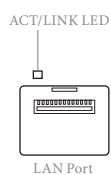
- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Quick Installation Guide

Layout



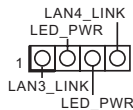
LAN Port LED Indications

Activity / Link LED	
Status	Description
Off	No Link
Blinking	10G Data Activity
On	10G Link



Onboard Header

Front LAN LED Connector
(LAN_LED_1)

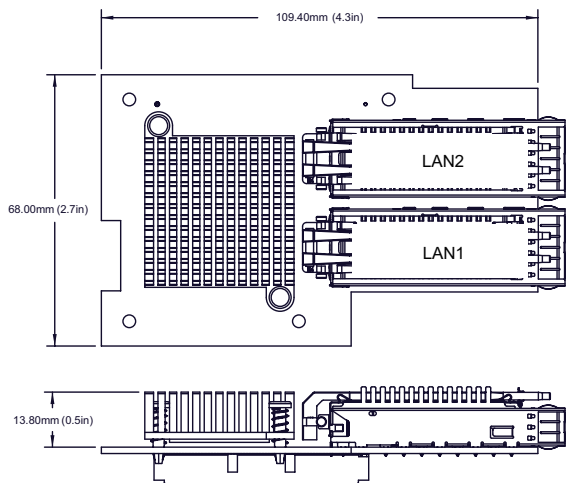


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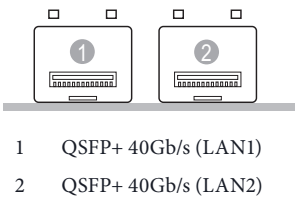
M710



Package Contents

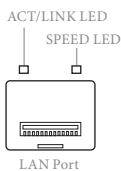
- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Quick Installation Guide

Layout



LAN Port LED Indications

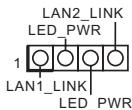
Activity / Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link



Speed LED	
Status	Description
Off	10/100Mbps connection
Off	1Gbps connection
Green	10/40Gbps connection

Onboard Header

Front LAN LED Connector
(XL_LAN_LED)

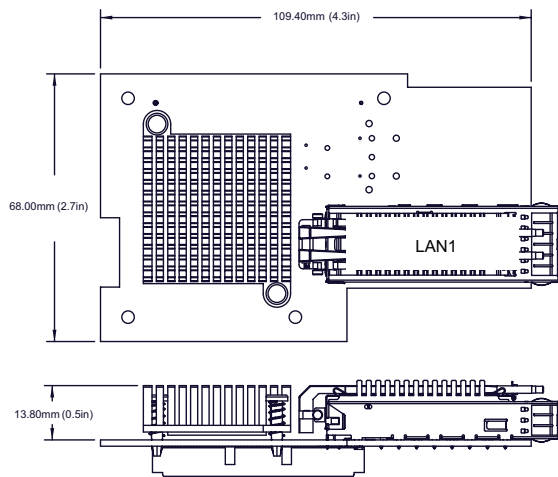


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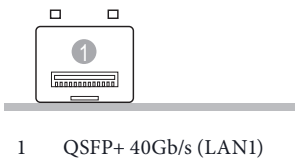
M710S



Package Contents

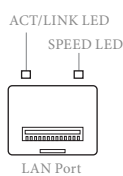
- 1 x Mezzanine Card
- 4 x Screws
- 4 x Standoffs
- 4 x Nuts
- 1 x Quick Installation Guide

Layout



LAN Port LED Indications

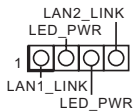
Activity / Link LED	
Status	Description
Off	No Link
Blinking	Data Activity
On	Link



Speed LED	
Status	Description
Off	10/100Mbps connection
Off	1Gbps connection
Green	10/40Gbps connection

Onboard Header

Front LAN LED Connector
(XL_LAN_LED)

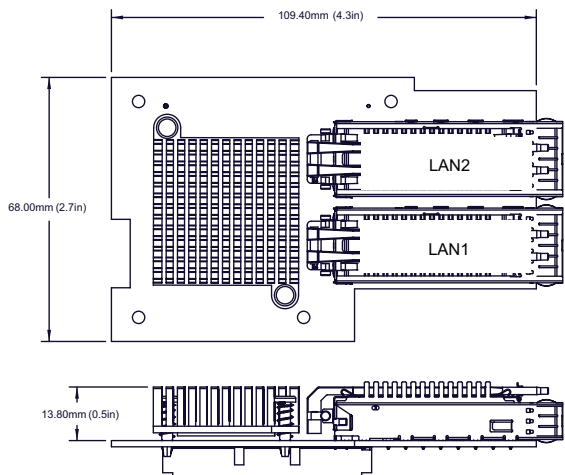


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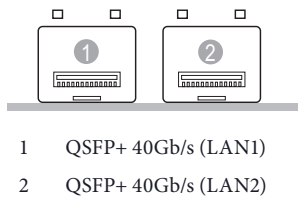
MCX3



Package Contents

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

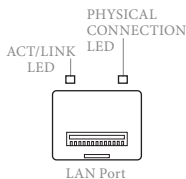
Layout



LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity

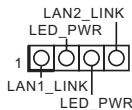


Physical Connection LED

Status	Description
On	Connected
Off	Disconnected

Onboard Header

Front LAN LED Connector
(LAN_LED1)

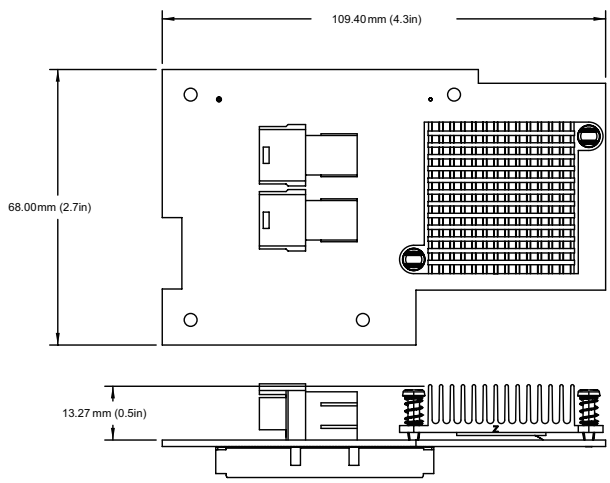


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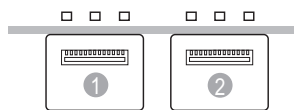
M41202R



Package Contents

- 1 x Mezzanine Card
- 4 x Spacer Supports(12mm)
- 4 x Spacer Supports(16mm)
- 1 x Quick Installation Guide

Layout

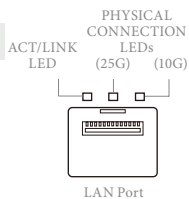


- 1 SFP28+ Connector 25G (LAN2)
- 2 SFP28+ Connector 25G (LAN1)

LAN Port LED Indications

Activity / Link LED

Status	Description
Off	No Link
Blinking	Data Activity
On	Link

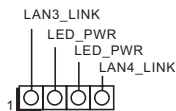


Speed LED

Status	Description
Off	1Gbps connection
Orange	10Gbps connection
Green	25Gbps connection

Onboard Header

Front LAN LED Connector
(LAN_LED_3_4)

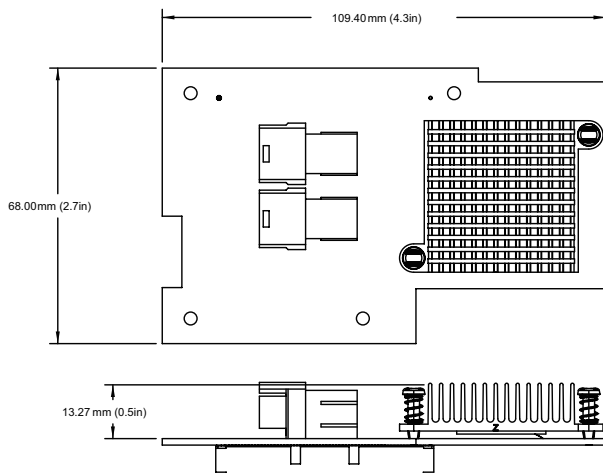


This 4-pin connector is used for the front LAN status indicator.

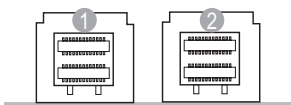


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M3008S



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

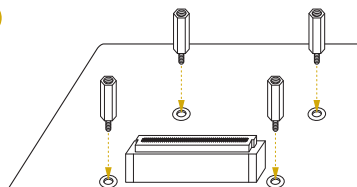
Operating Temperature	0°C ~ 70°C
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Mezzanine Card Installation (1) - Using Standoffs

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.

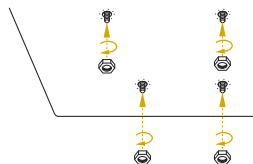
**The illustrations are for reference only and may be slightly different from the real products due to different models.*

1



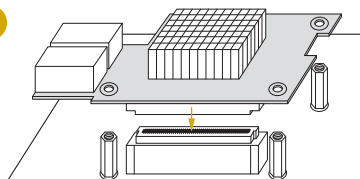
1. Install the four standoffs into the motherboard around the mezzanine card slot.

2



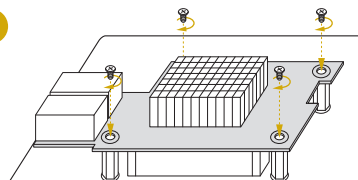
2. Install the four lock nuts on the bolts under the motherboard. Hand-tighten the nuts.

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.

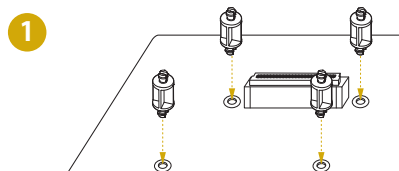
When the mezzanine card is well installed, horizontally slide the motherboard back to the chassis so the I/O connectors fit through the I/O openings at the rear of the chassis. Well install the motherboard to the chassis with screws. For more details, refer to the user manual that comes with your motherboard.

Mezzanine Card Installation (2) - Using Spacer Supports

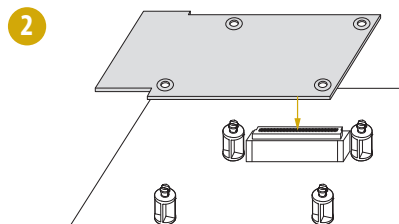
Before installing a mezzanine card to a motherboard, remove the motherboard from the chassis. To do so, be sure to power down the system and remove all connected cables first. For more details, refer to the user manual that comes with your system.

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

1. Install the four spacer supports into the motherboard around the mezzanine card slot.



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



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.

Simply squeeze the top of each spacer support to release the mezzanine card.

