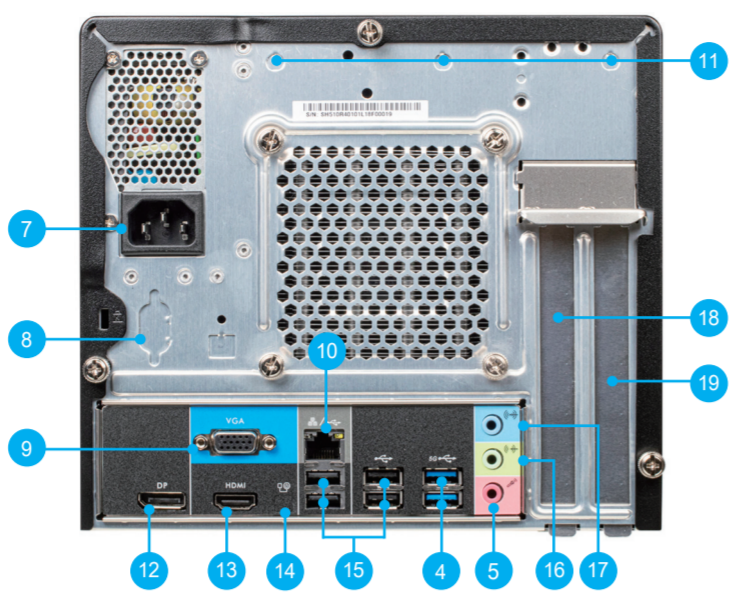


More information on this product can be found at: http://bit.ly/SH510R4
更多本產品資訊，請查閱：https://bit.ly/SH510R4
Weitere Informationen zu diesem Produkt finden Sie unter: https://bit.ly/SH510R4
Pour plus d'informations sur ce produit, visitez: https://bit.ly/SH510R4

Puede encontrar más información sobre este producto en: https://bit.ly/SH510R4
本製品の詳細な情報については、次の URL よりご確認ください。https://bit.ly/SH510R4
Для получения дополнительной информации об этом продукте перейдите по ссылке: https://bit.ly/SH510R4
更多本产品信息，请访问：https://bit.ly/SH510R4

Product Overview 產品外觀 / Produktübersicht / Présentation du produit / Resumen del producto / 製品概要 / Обзор продукта / 产品外观



- 1. 5.25" Bay
2. Hard disk drive LED
3. Power button / Power LED
4. USB 3.2 Gen 1 ports
5. Microphone jack
6. Headphones
7. AC power socket
8. Serial port (optional)
9. VGA port
10. LAN port

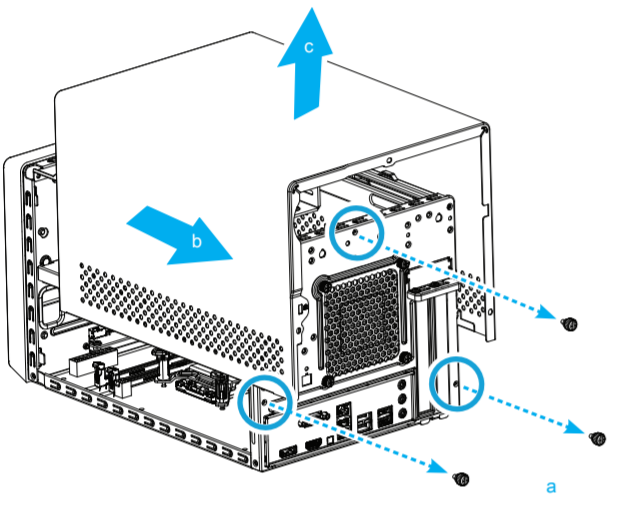
- 11. Perforation for optional WLAN
12. DisplayPort
13. HDMI port
14. Clear CMOS & Power Button & +5V
15. USB 2.0 ports
16. Line-out port
17. Line-in port
18. PCIe x16 slot
19. PCIe x1 slot

Hardware Installation 硬體安裝 / Hardware Installation / Installation du matériel / Instalación de hardware / ハードウェアのインストール / Установка оборудования / 硬件安装

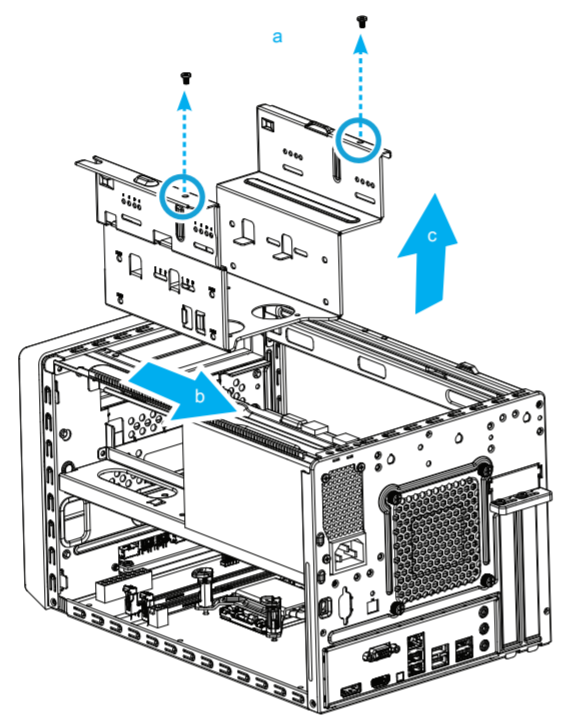
A. Begin Installation

For safety reasons, please ensure that the power cord is disconnected before opening the case.

- 1. Unscrew 3 thumbscrews of the chassis cover.
2. Slide the cover backwards and upwards.



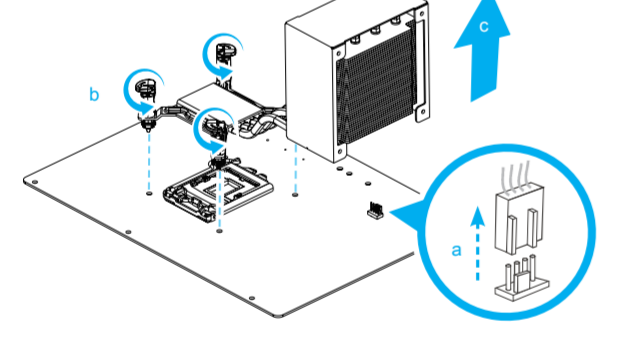
- 3. Unfasten the rack mount screws and remove the rack.



The product's colour and specifications may vary from the actually shipping product.

B. CPU and ICE Module Installation

- 1. Unfasten the ICE fan thumbscrews on the back of the chassis.
2. Unfasten the four ICE module attachment push-pins and unplug the fan connector.



- 3. Remove the ICE module from the chassis and put it aside.

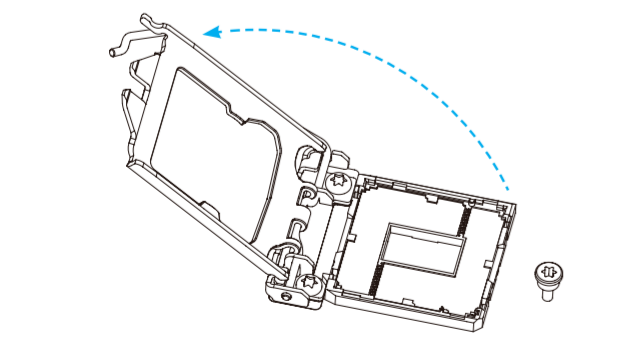
This CPU socket is fragile and can easily be damaged. Always use extreme care when installing a CPU and limit the number of times you remove or change the CPU. Before installing the CPU, make sure to turn off the computer and unplug the power cord from the power outlet to prevent damage of the CPU.

Follow the steps below to correctly install the CPU into the motherboard CPU socket.

- 4. Unlock and raise the socket lever.

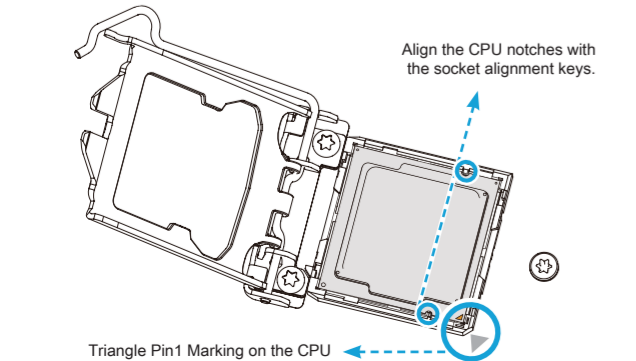


- 5. Lift the metal load plate off the CPU socket.



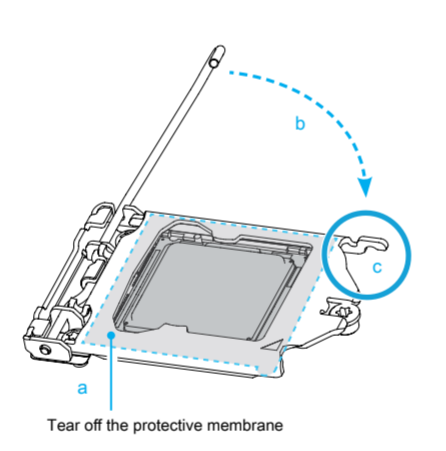
DO NOT touch the socket contacts. To protect the CPU socket, always use the protective socket cover when the CPU is not installed.

- 6. Please orientate the CPU correctly and align the CPU notches with the socket alignment keys. Make sure the CPU sits perfectly horizontal, then push it gently into the socket.

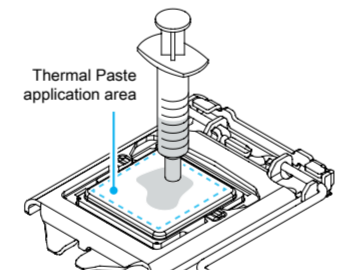


Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

- 7. Tear off the protective membrane from the metal load plate. Close the metal load plate, lower the CPU socket lever and lock in place.

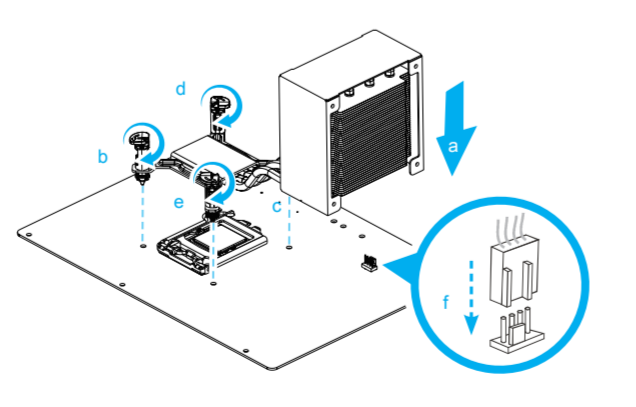


- 8. Spread thermal paste evenly on the CPU surface.

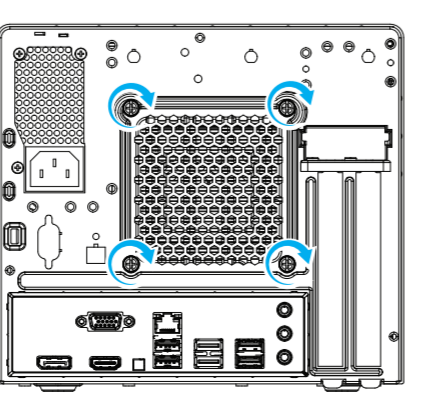


Please do not apply excess amount of thermal paste.

- 9. Screw the ICE module to the motherboard. Note to press down on the opposite diagonal corner while tightening each push-pin.
10. Connect the fan.



- 11. Tighten the Smart Fan to the chassis with the four thumbscrews.



C. Memory Module Installation

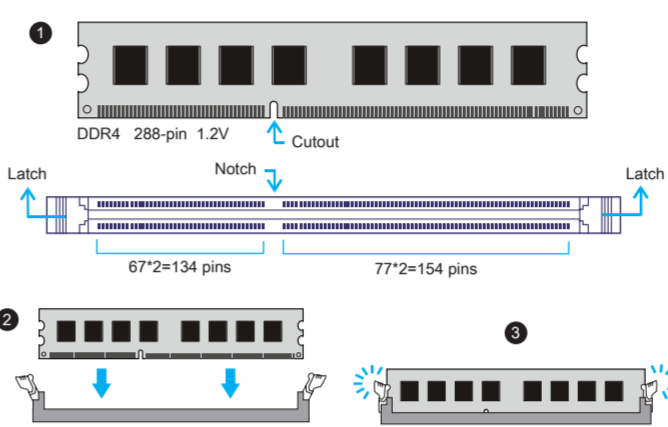
Guidelines for Memory Configuration Before installing DIMMs, read and follow these guidelines for memory configuration.

Make sure that the motherboard supports the memory. It is recommended that memory of the same capacity, brand, speed, and chips is used. (Go to Shuttle's website for the latest memory support list.) Memory modules have a foolproof design. A memory module can be installed in only one direction. If you are unable to insert the module, reverse direction.

Installing memory modules DDR4 and DDR3/DDR2 DIMMs are not compatible to one another or other DDR DIMMs. Be sure to install DDR4 DIMMs on this motherboard only. Follow the steps below to correctly install your memory modules in the memory sockets.

- 1. Unlock the DIMM latch.
2. Align the memory module's cutout with the notch of the DIMM slot. Slide the memory module into the DIMM slot.

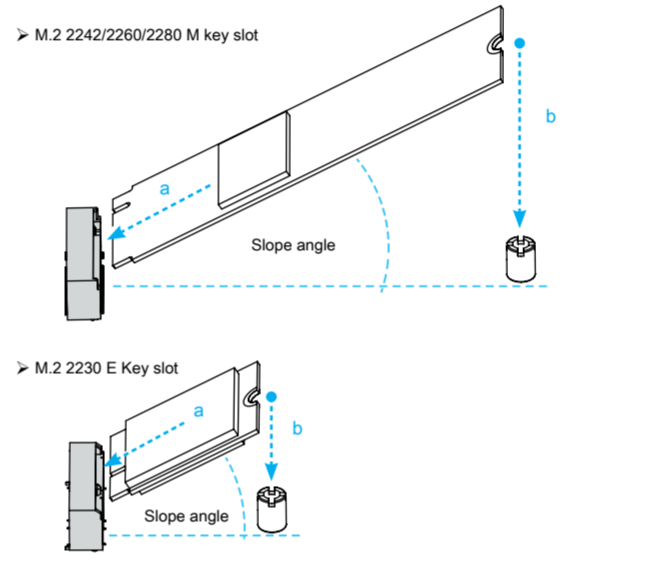
A DDR4 memory module has a cutout, so it only fits in one direction.



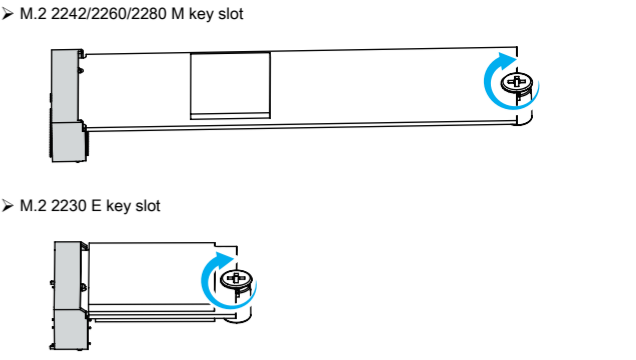
- 3. Check if the latches are closed and if all memory modules are firmly installed.
4. Repeat the above steps to install an additional memory module, if required.

D. M.2 Device Installation

- 1. Locate the M.2 key slots on the motherboard.

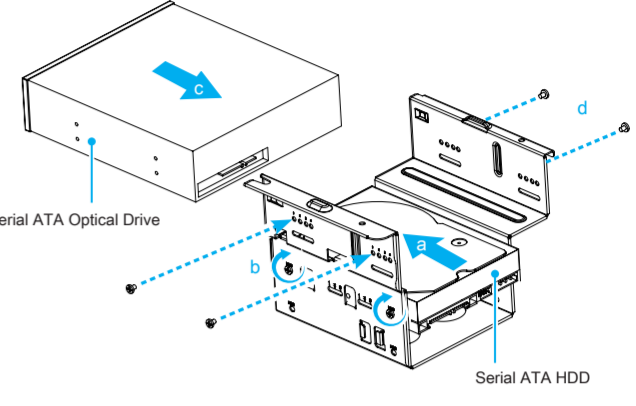


- 2. Install the M.2 device into the M.2 slot and secure with a screw.

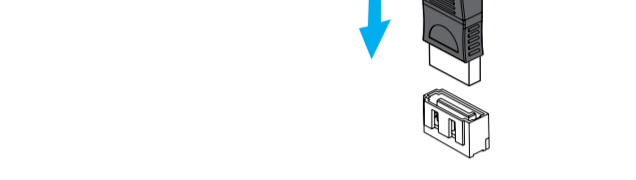


E. Installation of Drives

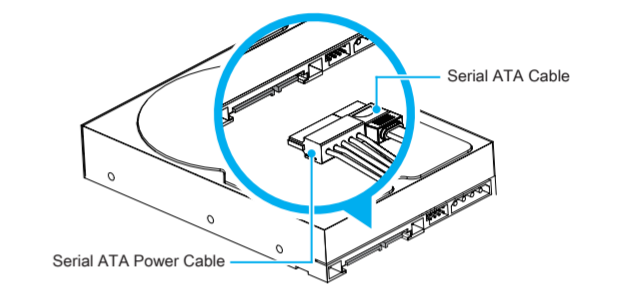
- 1. Loosen the purse lock and separate the Serial ATA and power cables.
2. Please place the HDD or SSD and the optical drive in the rack and secure with screws from the sides.



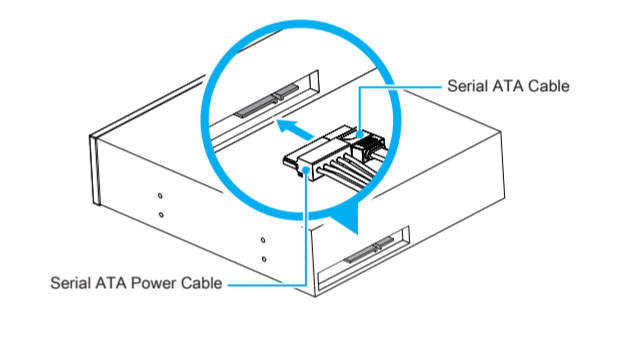
- 3. Connect the Serial ATA cable to the motherboard.



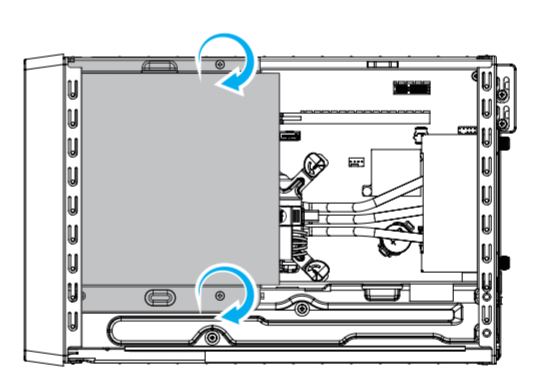
- 4. Connect the Serial ATA and power cables to the HDD.



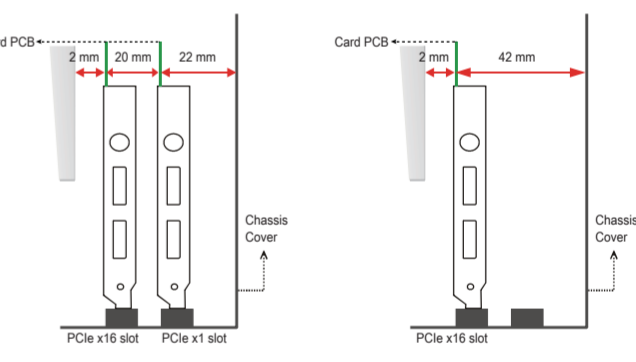
- 5. Connect the Serial ATA and power cables to the optical drive.



- 6. Place the rack in the chassis and refasten the rack.



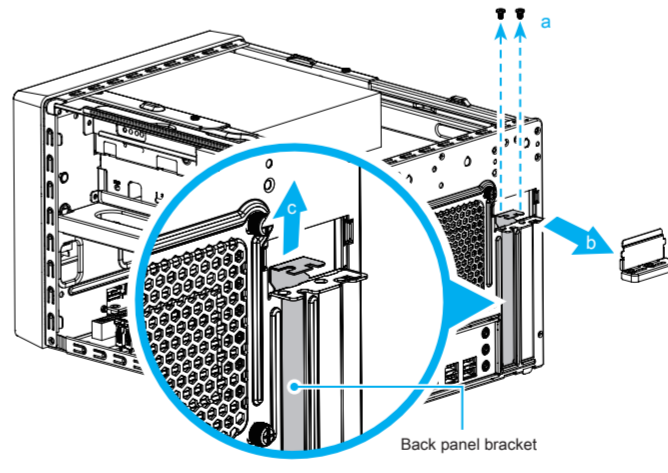
- 2. Install the PCIe x1 / PCIe x16 card into the PCIe x1 / PCIe x16 slots.
3. Secure the bracket.



F. Installation of Expansion Cards

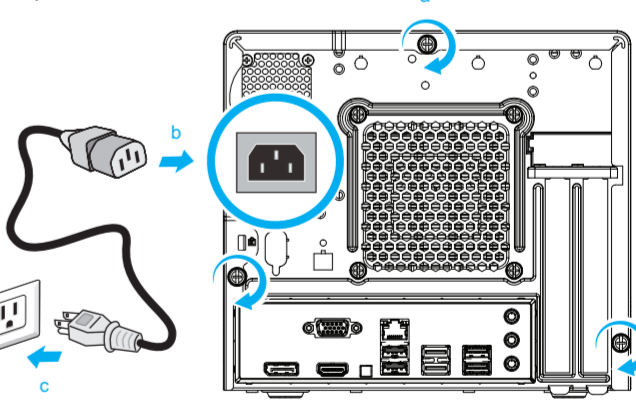
- 1. Unfasten the expansion slot bracket screws. Remove the back panel bracket and put it aside.

The maximum size acceptable for display cards is 273mm (L) x 98mm (H) x 38mm (D).



G. Complete

- 1. Replace the cover and tighten the thumbscrews, then connect the power cord.
2. Complete.



Please press the "Del" key while booting to enter BIOS. Here, please load the optimised BIOS settings.

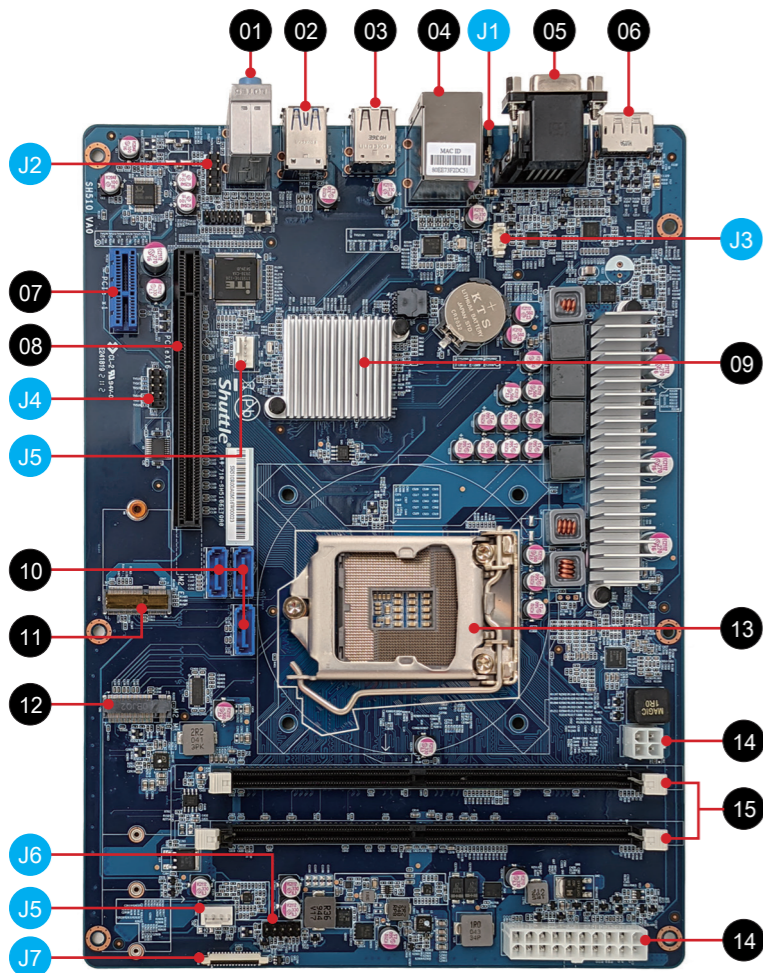
Safety Information 安全資訊 / Sicherheitshinweise / Informations de sécurité / Información de seguridad / 安全に関する情報 / Информация о безопасности / 安全信息

Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Dispose of used batteries according to the manufacturer's instructions.
Laser compliance statement: The optical disc drive in this PC is a laser product. The drive's classification label is located on the drive. CLASS 1 LASER PRODUCT CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.

La sustitución incorrecta de la batería puede dañar este equipo. Sustituya la batería únicamente por una igual o equivalente recomendada por Shuttle. Desechese las baterías usadas según las instrucciones del fabricante.
Laser compliance statement: The optical disc drive in this PC is a laser product. The drive's classification label is located on the drive. CLASS 1 LASER PRODUCT CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.

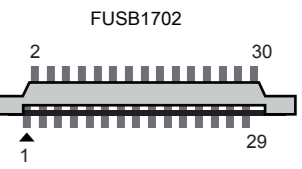
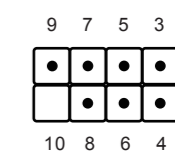
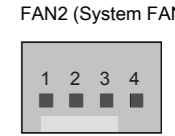
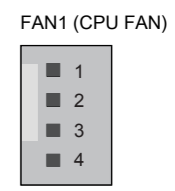
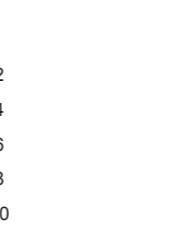
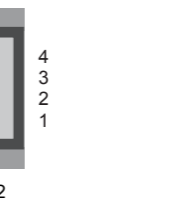
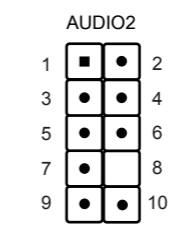
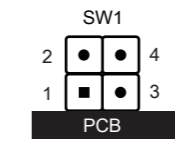
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This device meets the requirements for the CE conformity in accordance to the currently valid EU directives. Dieses Produkt erfüllt die Anforderungen für die CE-Konformität entsprechend der aktuell geltenden EU-Richtlinien. Ce produit répond aux exigences du marquage CE conformément aux directives européennes actuellement en vigueur.

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Laser compliance statement: The optical disc drive in this PC is a laser product. The drive's classification label is located on the drive. CLASS 1 LASER PRODUCT CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.



- 01. Line-in port
音源輸入埠
Audio Line-In Eingang
Port d'entrée ligne
Entrada de audio
ラインインポート
Линейный вход
音源輸入端口
- Line-out port
音源輸出埠
Audio Line-Out Ausgang
Sortie audio
Salida de línea de audio
ラインアウトポート
Аудио выход
音源輸出端口
- Microphone jack
麥克風輸入埠
Mikrofon-Anschluss
Entrée Micro
Entrada del micrófono
マイクインポート
Гнездо для микрофона
麦克风端口
- 02. USB 3.2 Gen 1 ports
USB 3.2 Gen 1 連接埠
USB 3.2 Gen 1-Anschlüsse
Prises USB 3.2 Gen 1
Puertos USB 3.2 Gen 1
USB 3.2 Gen 1 端口
USB 3.2 Gen 1 端口
- 03. USB 2.0 ports
USB 2.0 連接埠
USB 2.0-Anschlüsse
Prises USB 2.0
Puertos USB 2.0
USB 2.0 端口
USB 2.0 端口
- 04. LAN / USB 2.0 ports
網路連接埠 / USB 2.0 連接埠
Netzwerk / USB 2.0-Anschlüsse
Prises LAN / USB 2.0
Puertos LAN /USB 2.0
LAN / USB 2.0 端口
Сетевые LAN / USB 2.0-порты
LAN / USB 2.0 端口
- 05. VGA / HDMI 2.0 port
VGA / HDMI 2.0 連接埠
VGA / HDMI 2.0-Anschluss
Prise VGA / HDMI 2.0
Puerto VGA / HDMI 2.0
VGA / HDMI 2.0 端口
VGA / HDMI 2.0 端口
VGA / HDMI 2.0 端口
- 06. DisplayPort
DisplayPort 連接埠
DisplayPort
Prise DisplayPort
DisplayPort
ディスプレイポート
DisplayPort
DisplayPort 端口
- 07. PCIe x1 slot
PCIe x1 插槽
PCIe x1 Steckplatz
Emplacement PCIe x1
PCIe x1 Ranura
PCIe x1 スロット
PCIe x1 插槽
- 08. PCIe x16 slot
PCIe x16 插槽
PCIe x16 Steckplatz
Emplacement PCIe x16
PCIe x16 Ranura
PCIe x16 スロット
PCIe x16 插槽
- 09. Intel® H510 chipset
Intel® H510 晶片組
Intel® H510 Chipsatz
Chipset Intel® H510
Intel® H510 Conjunto de chips
Intel® H510 チップセット
Набор микросхем Intel® H510
Intel® H510 晶片組
- 10. SATA 3.0 6Gb/s connector
SATA 3.0 6Gb/s 插槽
SATA 3.0-Anschlüsse (6 Gb/s)
Connecteurs SATA 3.0 6Gb/s
Base de conexiones SATA 3.0 6Gb/s
SATA 3.0 6Gb/s コネクタ
Разъем SATA 3.0 6 Гбит/с
SATA 3.0 6Gb/s 接口
- 11. M.2 2230 E key slot
M.2 2230 E key 插槽
M.2-2230 (E) Steckplatz
Emplacement M.2 2230 E
Ranura M.2 2230 E
M.2 2230 E キー插槽
Слот M.2 2230 E ключ
M.2 2230 E key 插槽
- 12. M.2 2242/2260/2280 M key slot
M.2 2242/2260/2280 M key 插槽
M.2-2242/2260/2280 (M) Steckplatz
Emplacement M.2 2242/2260/2280 M
Ranura M.2 2242/2260/2280 M
M.2 2242/2260/2280 M キー插槽
Слот M.2 2242/2260/2280 M ключ
M.2 2242/2260/2280 M key 插槽
- 13. Processor socket LGA 1200
LGA 1200 處理器插槽
Sockel für LGA 1200-CPU's
Socket Processeur LGA 1200
Zócalo LGA 1200 de CPU
Процессорный LGA 1200
Разъем процессора LGA 1200
LGA 1200 处理器插槽
- 14. ATX power connector
電源連接埠
ATX-Netzteil-Anschluss
Prise d'alimentation ATX
Conector de alimentación ATX
ATX電源コネクタ
ATX 電源接口
ATX 電源插座
- 15. 2x 288-pin DDR4 DIMM slot
2x 288-pin DDR4 DIMM 插槽
2x 288-pin DDR4 DIMM Steckplatz
2x emplacements 288-pin pour DDR4 DIMM
2 ranuras DIMM DDR4 de 288 contactos Slots
2x 288-pin DDR4 DIMM 插槽
2x 288 контактный Слот DDR4 DIMM
2x 288-pin DDR4 DIMM 插槽

- J1 Clear CMOS & power button & +5V
清除 CMOS & 電源按鈕 & +5V
Clear CMOS & Power Button & +5V
Reset CMOS & Bouton d'alimentation & +5V
Clear CMOS & Botón de encendido & +5V
CMOS クリア & 電源スイッチ & +5V
Сброс CMOS, внешняя кнопка питания, +5 V
清除 CMOS & 電源按鈕 & +5V
- J2 Front audio header
前面板音效插座
Audio-Anschluss für Vorderseite
Connecteur audio pour façade
Conector de audio del panel frontal
前面オーディオヘッダ
Передний Аудио разъем
前面板音效插座
- J3 USB 2.0 cable connector
USB 2.0 排線插座
Anschluss für USB 2.0-Kabel
Connecteur câble USB 2.0
Conexión para cable USB 2.0
USB 2.0 ケーブルコネクタ
Разъем USB 2.0- кабеля
USB 2.0 扁平電纜插座
- J4 COM header
COM 插座
COM-Anschluss
Connecteur COM
Base de conexiones COM
COM コネクタ
Разъем COM
COM 插座
- J5 Fan connector
風扇連接埠
Lüfteranschluss
Connecteur ventilateur
Conector del ventilador
FAN コネクタ
Разъем вентилятора
風扇插座
- J6 Connector for front buttons/LEDs
電源按鈕 / LED 插座
Anschluss für vordere Buttons/LEDs
Connexion pour les boutons en façade
Conexión para pulsadores frontales/LEDs
フロントボタン LED 用コネクタ
Разъем для кнопок / LED- индикаторов передней панели
電源按鈕 / LED 插座
- J7 Front USB 3.0 header
前置 USB 3.0 插座
USB-3.0-Anschluss (für vorne)
Port USB 3.0 (façade)
Conexión delantera USB 3.0
フロント USB 3.0 用ピンヘッダ
Разъем USB 3.0 порта (передняя панель)
前置 USB 3.0 插座



- 1=RTC Reset
2=VCC_AUX
(Power source 5.0V/0.5A)(Disable in Eup mode)
3=GND
4=Power SW
- 1=Microphone input L
2=Audio GND
3=Microphone input R
4=Front panel daughter board detection (Low active)
5=Headphone out R
6=Microphone audio jack detect
7=Front panel audio jack sense
8=NULL
9=Headphone out L
10=Headphone audio jack detect
- 1=GND (Power Ground)
2=Data+ (USB 2.0 Data pin)
3=Data- (USB 2.0 Data pin)
4=VBUS (USB power 5.0V/0.5A)
- 1=DCD
2=RXD
3=TXD
4=DTR
5=GND
6=DSR
7=RTS
8=CTS
9=XRI1
10=NULL
- 1=HDD LED P
2=Power LED P
3=HDD LED N
4=Power LED N
5=System reset (Low active)
6=Power switch (Low active)
7=GND
8=GND
9=NA.
10=NULL
- 1=3VSB (Power source 3.3V)
2=5V_DAU (Power Source 5.0V)
3=5V_DAU (Power Source 5.0V)
4=5V_DAU (Power Source 5.0V)
5=USB Power ON (Low active)
6=GND
7=USB3.2 Gen1 port 1 RX_N
8=USB3.2 Gen1 port 1 RX_P
9=GND
10=USB3.2 Gen1 port 1 TX_N
11=USB3.2 Gen1 port 1 TX_P
12=GND
13=USB2.0 Port 1 Data N
14=USB2.0 Port 1 Data P
15=GND
16=GND
17=USB2.0 Port 2 Data P
18=USB2.0 Port 2 Data N
19=GND
20=USB3.2 Gen1 port 2 TX_P
21=USB3.2 Gen1 port 2 TX_N
22=GND
23=USB3.2 Gen1 port 2 RX_P
24=USB3.2 Gen1 port 2 RX_N
25=GND
26=USB Power ON (Low active)
27=5V_DAU (Power Source 5.0V)
28=5V_DAU (Power Source 5.0V)
29=5V_DAU (Power Source 5.0V)
30=3VSB (Power source 3.3V)