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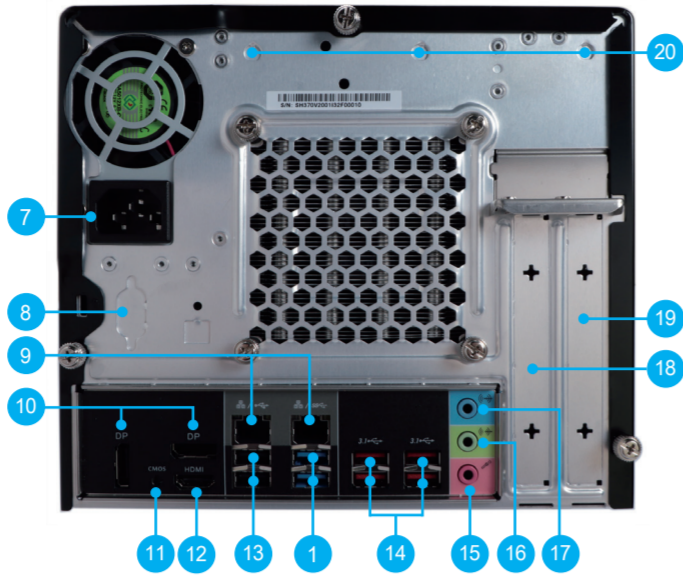
Puede encontrar más información sobre este producto en: <http://bit.ly/SH370R8>
 本製品の詳細な情報については、次のURLより確認頂けます。 <http://bit.ly/SH370R8>
 Для получения дополнительной информации об этом продукте перейдите по ссылке: <http://bit.ly/SH370R8>
 更多本产品信息, 请访问: <http://bit.ly/SH370R8>

Product Overview

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



1. USB 3.1 Gen 1 ports
2. MIC-in
3. Headphones
4. Power button
5. Power LED
6. Hard disk drive LED
7. AC power socket
8. Serial port (optional)
9. LAN ports
10. DisplayPort



11. Clear CMOS button
12. HDMI 2.0 port
13. USB 2.0 ports
14. USB 3.1 Gen 2 ports
15. Microphone jack
16. Front speaker out (L/R) port
17. Line-in port
18. PCIe x16 slot
19. PCIe x4 slot
20. Perforation for optional WLAN

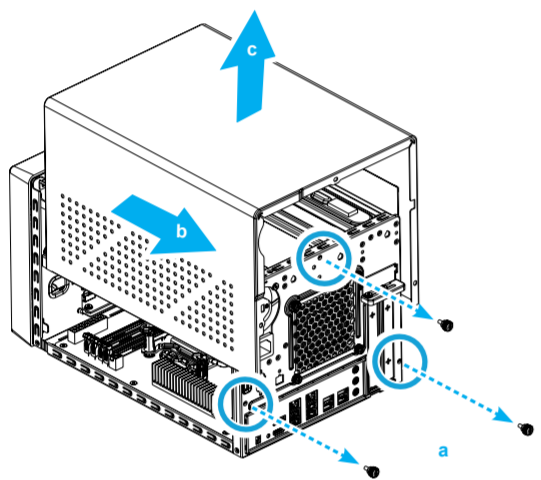
Hardware Installation

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

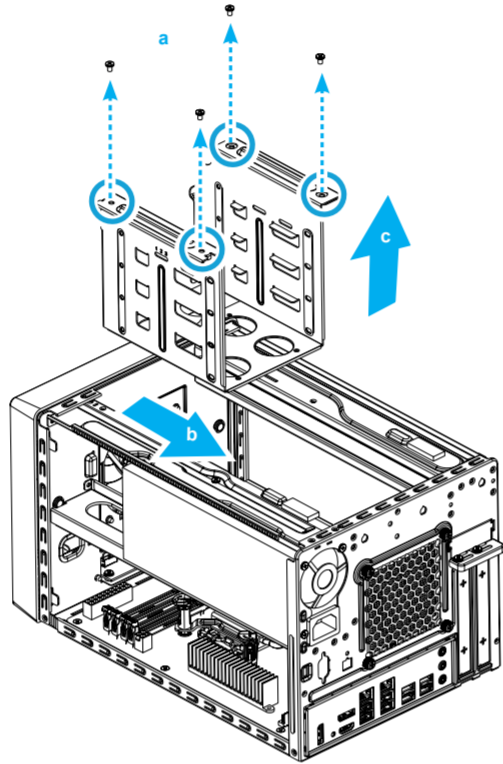
⚠ For safety reasons, please ensure that the power cord is disconnected before opening the case.

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



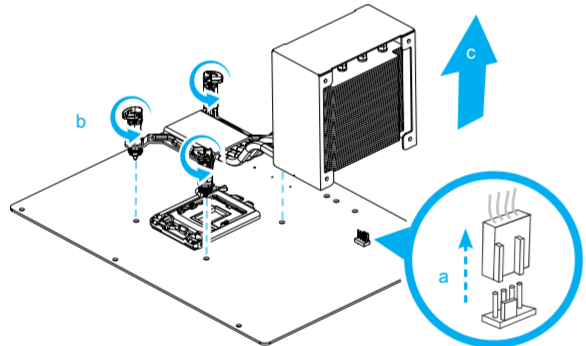
☞ The product's colour and specifications may vary from the actually shipping product.

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



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.

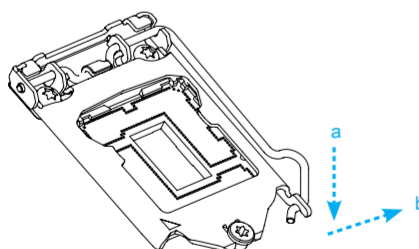


3. Remove the ICE module from the chassis and put it aside.

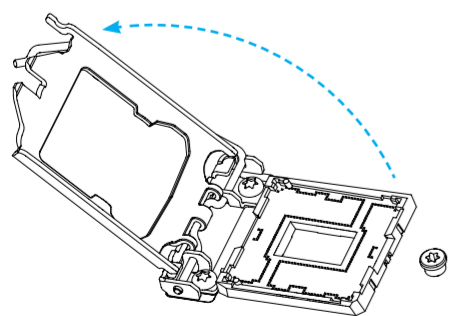
⚠ This CPU socket is fragile and can easily be damaged. Always use extreme care when installing a CPU and limit the number of times you remove or change the CPU. Before installing the CPU, make sure to turn off the computer and unplug the power cord from the power outlet to prevent damage of the CPU.

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

4. Unlock and raise the socket lever.

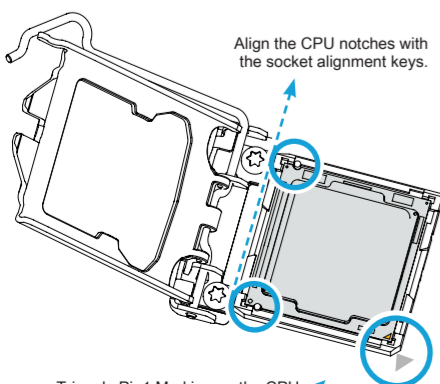


5. Lift the metal load plate on the CPU socket.



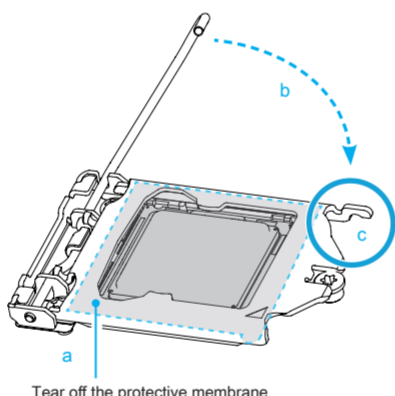
⚠ DO NOT touch the socket contacts. To protect the CPU socket, always use the protective socket cover when the CPU is not installed.

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.

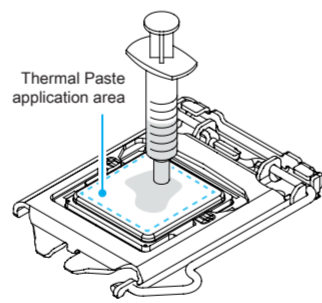


⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

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.



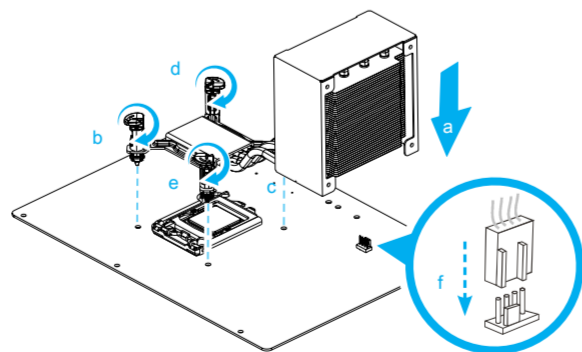
8. Spread thermal paste evenly on the CPU surface.



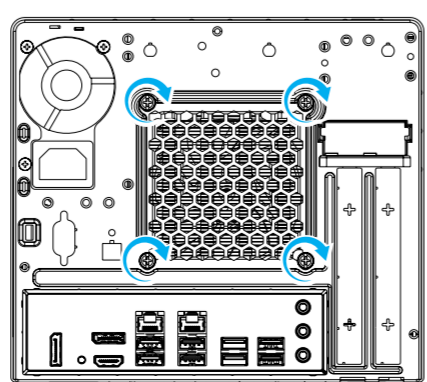
⚠ Please do not apply excess amount of thermal paste.

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. Fasten the Smart Fan to the chassis with the four thumbscrews.



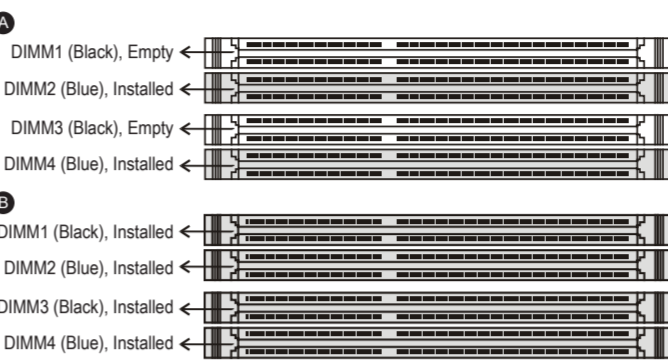
C. Memory Module Installation

➤ 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.

➤ Population rules of dual channel memory modules

In Dual-Channel mode, the memory modules can transmit and receive data with two data bus lines simultaneously. Enabling Dual-Channel mode can enhance system performance. The following illustrations explain the population rules for Dual-Channel mode.

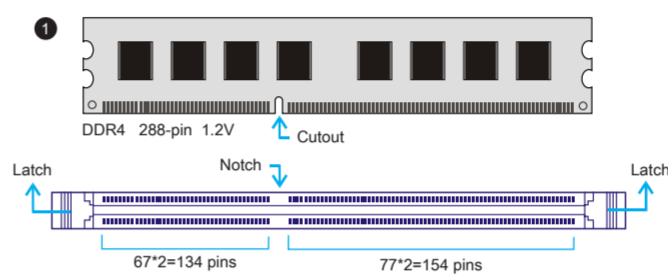


➤ Installing memory modules

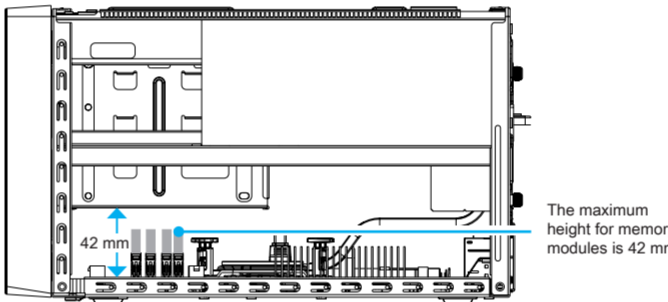
DDR4 and DDR3/DDR2 DIMMs are not compatible to one another or other DDR DIMMs. Be sure to install DDR4 DIMMs on this motherboard only. Follow the steps below to correctly install your memory modules in the memory sockets.

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.



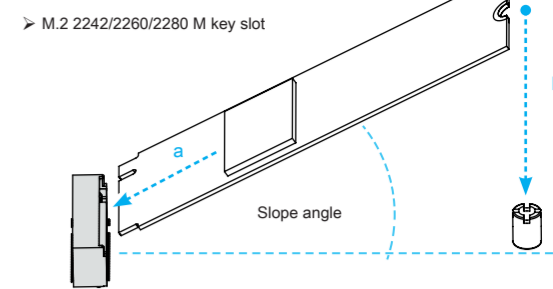
3. Check if the latches are closed and if all memory modules are firmly installed.



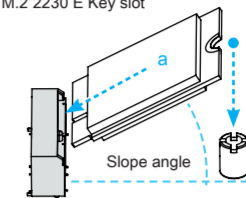
⚠ Repeat the above steps to install additional memory modules, if required.

D. M.2 Device Installation

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

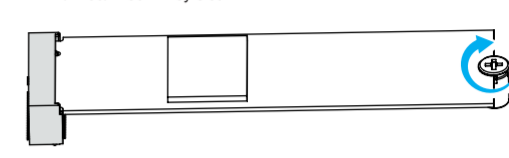


➤ M.2 2230 E Key slot

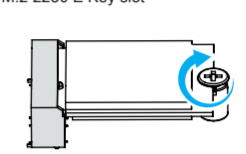


2. Install the M.2 device into the M.2 slot and secure with a screw.

➤ M.2 2242/2260/2280 M key slot

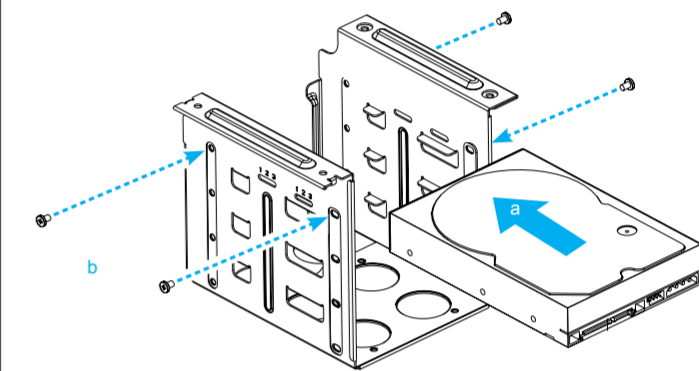


➤ M.2 2230 E Key slot

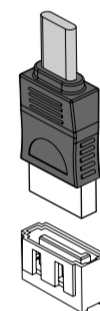


E. Installation of Drives

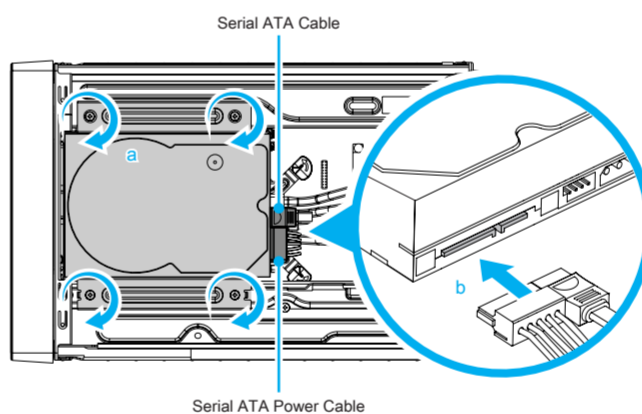
1. Loosen the purse lock and separate the Serial ATA and power cables.
2. Place the HDD or SSD in the rack and secure with screws from the sides.



3. Connect the Serial ATA cable to the motherboard.

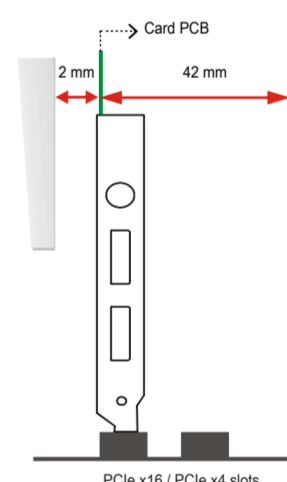


4. Place the rack in the chassis and refasten the rack.
5. Connect the Serial ATA and power cables to the HDD or SSD.



6. Repeat the previous steps to install three further 3.5" drives. The R8 chassis allows for a total of four 3.5" drives to be installed.

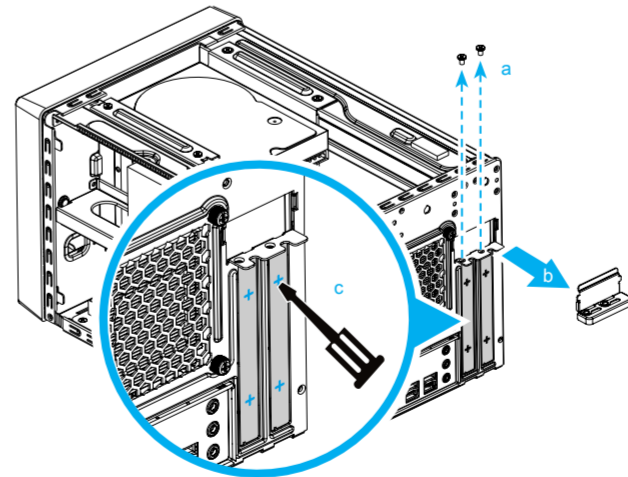
2. Install the PCIe x4 / PCIe x16 card into the PCIe x4 / PCIe x16 slots.
3. Secure the bracket.



F. Installation of Expansion Cards

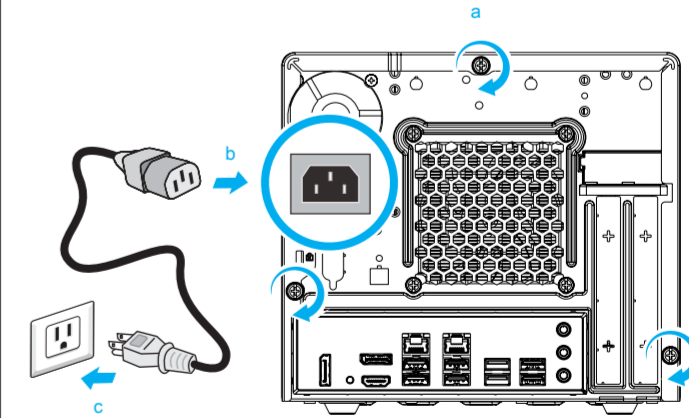
1. Unfasten the expansion slot bracket screws. Remove the back panel bracket and put it aside.

⚠ The maximum size acceptable for display cards is 280mm(L) x 120mm(H) x 40mm(D).



G. Complete

1. Replace the cover and refasten 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 \ Информациa o 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.

更換電池方式錯誤可能會損壞本電腦以及引發爆炸、火災或其他危險。僅能依 Shuttle 的建議, 以相同或同等之電池更換。請依照製造商的使用說明處理廢電池。
 Das unkorrekte Austauschen der Batterie kann diesen Computer beschädigen. Ersetzen Sie die Batterie nur durch den von Shuttle empfohlenen Typ oder ein gleichwertiges Modell. Entsorgen Sie gebrauchte Batterien gemäß den Herstellerangaben.
 Ne pas remplacer correctement la pile peut endommager l'ordinateur. Remplacez-la uniquement par un modèle identique ou un équivalent comme recommandé par Shuttle. Débarrassez-vous des piles usagées d'après les instructions du constructeur.

La sustitución incorrecta de la batería puede dañar este equipo. Sustituya la batería únicamente por una igual o equivalente recomendada por Shuttle. Deseche las baterías usadas según las instrucciones del fabricante.

バッテリーを間違えてセットすると、このコンピュータが損傷する原因となります。交換する際は、Shuttle が推奨するバッテリーと同じものまたは同等のものだけを使用するようにしてください。使用済みバッテリーは、メーカーの指示に従って処分してください。서용 XPC 를 설치하기 전에 다음 주의사항을 꼭 읽어보시기 바랍니다. 주의 배터리를 잘못 교체할 경우 컴퓨터에 손상이 갈 수 있습니다. 서용이 기본적으로 장착한 것과 동일한 제품만을 사용하십시오. 사용한 배터리의 폐기는 배터리 제조업체의 지시에 따르십시오。

更換電池方式錯誤可能會損壞本電腦。僅能依 Shuttle 的建議, 以相同或同等之電池更換。請依照製造商的使用說明處理廢電池。

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.

CE This device meets the requirements for the EU conformity in accordance to the currently valid EU directives.

Dieses Produkt erfüllt die Anforderungen für die EU-Konformität entsprechend der aktuell geltenden EU-Richtlinien.
 Ce produit répond aux exigences de la conformité UE suivant les directives européennes actuellement en vigueur.

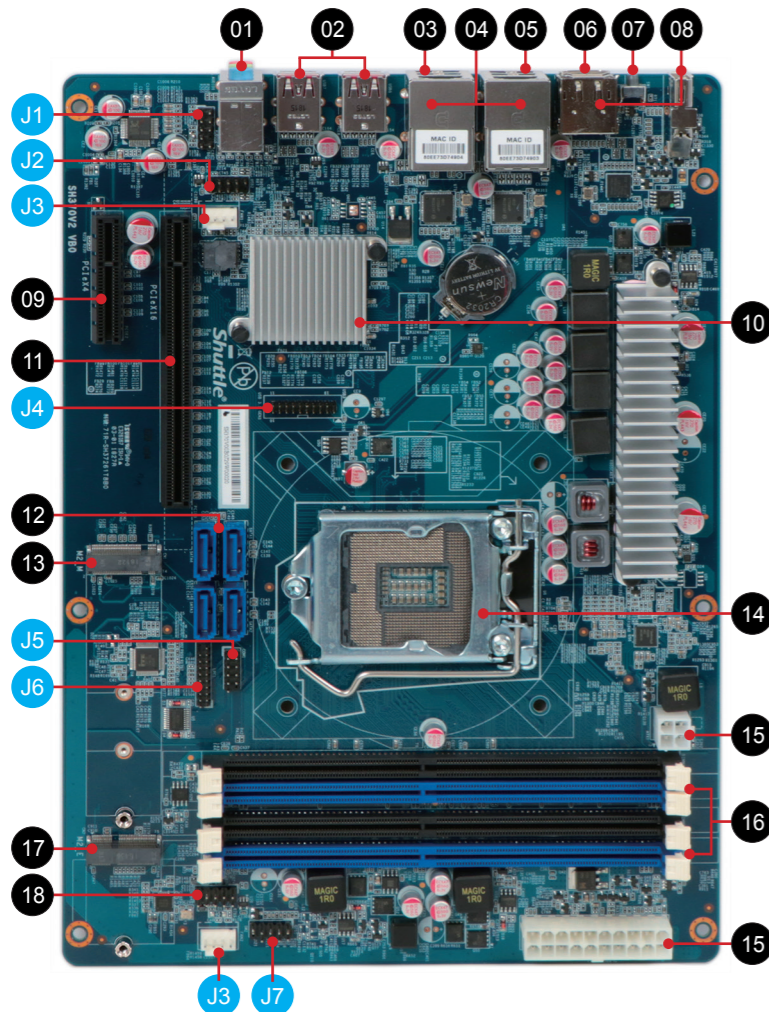
注意: 仅适用于在非热带气候条件下安全使用, 在热带气候条件下使用时, 可能有安全隐患。

注意: 允许产品使用的最高环境温度为 40°C。

注意: 仅适用于海拔 2000m 以下安全使用, 在海拔 2000m 以上使用时, 可能有安全隐患。

All bundled parts, power cord included, shall not be used without this product. 電源ケーブル等、すべての付属品は本機以外ではご使用になれません。





01. Line-in port
音源輸入埠
Audio Line-In Eingang
Port d'entrée ligne
Entrada de audio Line-in
ラインインポート
Линейный вход
音源輸入埠口
Front speaker out (L/R) port
左 / 右聲道輸出埠
Lautsprecher-Anschluss/Line-Out
Sortie audio avant (G/D)
Salida de audio Line-out
正面アウト (L/R) ポート
Линейный выход
左 / 右声道輸出埠口
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
麦克风连接埠口

02. USB 3.1 Gen 2 ports
USB 3.1 Gen 2 連接埠
USB 3.1 Gen 2-Anschlüsse
USB コネクタ
USB разъем
USB 插座

03. USB 3.1 Gen 1 ports
USB 3.1 Gen 1 連接埠
USB 3.1 Gen 1-Anschlüsse
Prises USB 3.1 Gen 1
Puertos USB 3.1 Gen 1
USB 3.1 Gen 1 ポート
USB 3.1 Gen 1 埠口
USB 3.1 Gen 1 埠口

14. Processor socket LGA1151v2
LGA1151v2 處理器插座
Socket für LGA1151v2-CPU's
Socket Processeur LGA1151v2
Zócalo LGA1151v2 de CPU
Процессорный Socket LGA1151v2
Разъем процессора LGA1151v2
LGA1151v2 处理器插座

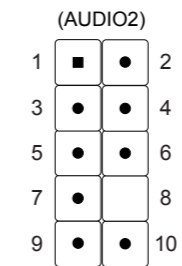
15. ATX power connector
電源連接埠
ATX-Netzteil-Anschluss
Prise d'alimentation ATX
Conector de alimentación ATX
ATX 電源コネクタ
ATX 埠口
ATX 电源插座

16. 4x 288-pin DDR4 DIMM slot
4x 288-pin DDR4 DIMM 插槽
4x 288-pin DDR4 DIMM Steckplatz
4x emplacements 288-pin pour DDR4 DIMM
4 ranuras DIMM DDR4 de 288 contactos Slots
4x 288-pin DDR4 DIMM 插槽
4x 288 接触点 Slot DDR4 DIMM
4x 288-pin DDR4 DIMM 插槽

17. 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 插槽
Slot M.2 2230 E 插槽
M.2 2230 E key 插槽

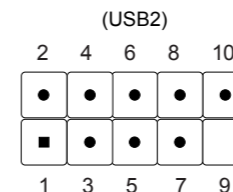
18. USB header
USB 插座
USB-Anschluss
Connecteur USB
Base de conexiones USB extendida
USB コネクタ
USB 埠口
USB 插座

- J1 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



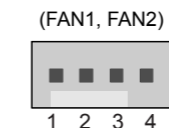
- 1=MIC_L 2=GND
3=MIC_R 4=Front_Detect
5=LINE_R 6=Mic_detect
7=Sense 8=NULL
9=LINE_L 10=Line_Detect

- J2 USB header
USB 插座
USB-Anschlüsse
Connecteur USB
Base de conexiones USB extendida
USB コネクタ
USB разъем
USB 插座



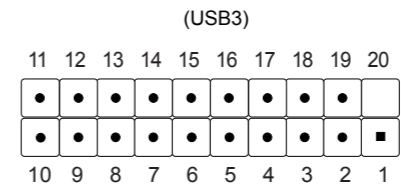
- 1=5V_USB 2=5V_USB
3=USB_A_N 4=USB_B_N
5=USB_A_P 6=USB_B_P
7=GND 8=GND
9=NULL 10=GND

- J3 FAN connectors
風扇插座
Lüfteranschluss
Connecteur ventilateur
Conector del ventilador
FAN コネクタ
Разъемы вентиляторов
风扇插座



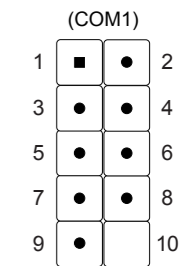
- 1=GND 2=+12V
3=SPEED_SENSE 4=PWM_CTRL

- J4 USB 3.0 header
USB 3.0 插座
USB 3.0-Anschluss
Connecteur USB 3.0
USB 3.0 encabezamiento
USB 3.0 コネクタ
Разъем USB 3.0
USB 3.0 插座



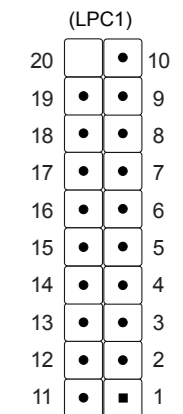
- 1=5VCC 2=A_RX_N
3=A_RX_P 4=GND
5=A_TX_N 6=A_TX_P
7=GND 8=A_USB_N
9=A_USB_P 10=NA
11=B_USB_P 12=B_USB_N
13=GND 14=B_TX_P
15=B_TX_N 16=GND
17=B_RX_P 18=B_RX_N
19=5VCC NULL

- J5 COM header
COM 插座
COM-Anschluss
Connecteur COM
Base de conexiones COM
COM コネクタ
Разъем COM
COM 插座



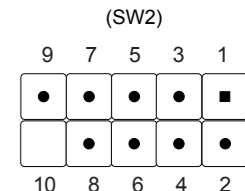
- 1=DCD 2=RXD
3=TXD 4=DTR
5=GND 6=DSR
7=RTS 8=CTS
9=XRI1 10=NULL

- J6 LPC header
LPC 插座
LPC-Anschluss
LPC Header
Base de conexiones LPC
LPC コネクタ
Разъем LPC
LPC 插座



- 1=+12V 2=+5V
3=5V_DUAL 4=SERIRQ
5=LPT24M_1 6=LPT24M_2
7=SIORST- 8=LFRAME-
9=LAD3 10=LAD2
11=-12V 12=3VSB
13=NA 14=LDRQ0
15=PCH_PME- 16=LAD1
17=LAD0 18=+3.3V
19=GND 20=NULL

- J7 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
电源按钮 / LED 插座



- 1=+HD_LED 2=PWR_LED
3=-HD_LED 4=GND
5=RST_SW- 6=PWR_SW-
7=GND 8=GND
9=NA 10=NULL

04. LAN ports
網路連接埠
Netzwerk-Anschlüsse
Prises LAN
Puertos LAN
LAN ポート
Сетевые LAN-порты
LAN 连接埠口

09. PCIe x4 slot
PCIe x4 插槽
PCIe x4 Steckplatz
Slot PCIe x4
PCIe x4 Ranura
PCIe x4 插槽
Слоты PCIe x4
PCIe x4 插槽

05. 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 ポート
USB 2.0 埠口
USB 2.0 连接埠口

10. Intel® H370 chipset
Intel® H370 晶片組
Intel® H370 Chipsatz
Intel® H370 Chipset
Intel® H370 Conjunto de chips
Intel® H370 晶片組
Набор микросхем Intel® H370
Intel® H370 晶片組

06. HDMI 2.0 port
HDMI 2.0 連接埠
HDMI 2.0-Anschluss
Prise HDMI 2.0
Puerto HDMI 2.0
HDMI 2.0 ポート
HDMI 2.0 埠口
HDMI 2.0 连接埠口

11. PCIe x16 slot
PCIe x16 插槽
PCIe x16 Steckplatz
Slot PCIe x16
PCIe x16 Ranura
PCIe x16 插槽
Слоты PCIe x16
PCIe x16 插槽

07. Clear CMOS button
清除 CMOS 鈕
Clear CMOS Button
Bouton de reset CMOS
Botón clear CMOS
クリア CMOS ボタン
Кнопка сброса памяти CMOS
清除 CMOS 鈕

12. 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

08. DisplayPort
DisplayPort 連接埠
DisplayPort
Prise DisplayPort
DisplayPort
ディスプレイポート
DisplayPort
DisplayPort 连接埠口

13. 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 插槽
Слот M.2 2242/2260/2280 M 插槽
M.2 2242/2260/2280 M key 插槽