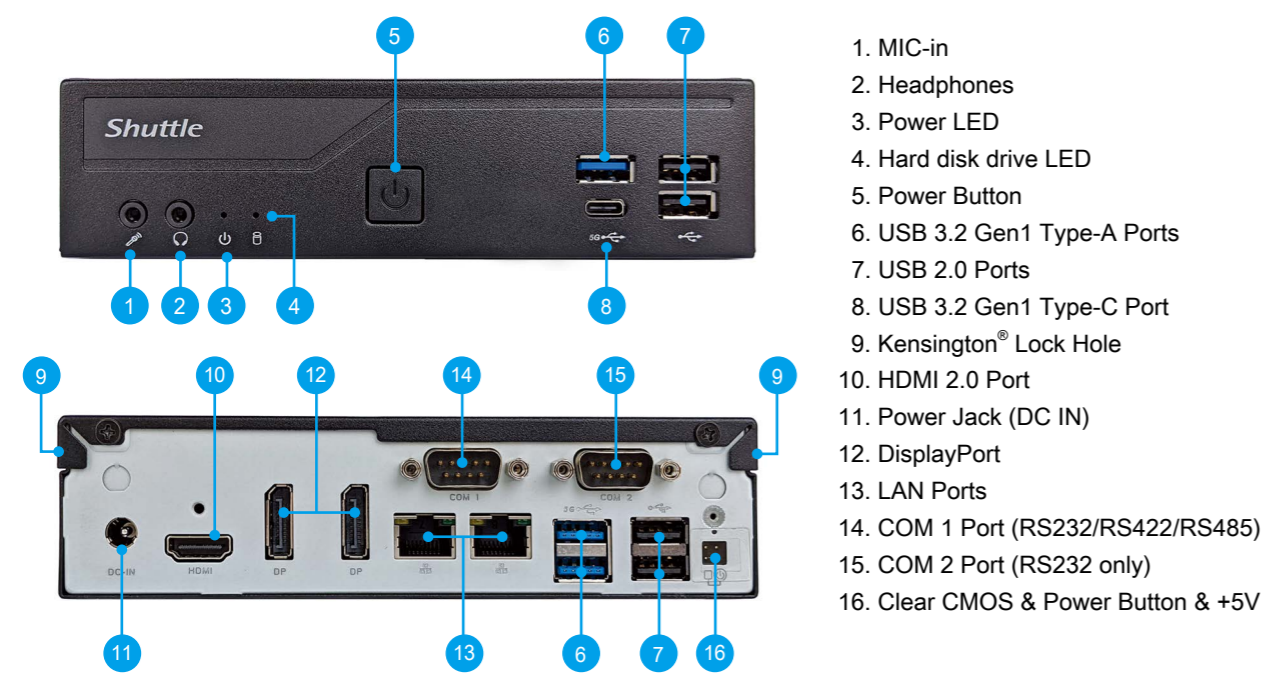


More information on this product can be found at: <https://bit.ly/DH610V2>  
 更多本產品資訊，請查閱：<https://bit.ly/DH610V2>  
 Weitere Informationen zu diesem Produkt finden Sie unter: <https://bit.ly/DH610V2>  
 Pour plus d'informations sur ce produit, visitez: <https://bit.ly/DH610V2>

Puede encontrar más información sobre este producto en: <https://bit.ly/DH610V2>  
 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。<https://bit.ly/DH610V2>  
 Для получения дополнительной информации об этом продукте перейдите по ссылке: <https://bit.ly/DH610V2>  
 更多本產品信息，请访问：<https://bit.ly/DH610V2>

Product Overview

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



1. MIC-in
2. Headphones
3. Power LED
4. Hard disk drive LED
5. Power Button
6. USB 3.2 Gen1 Type-A Ports
7. USB 2.0 Ports
8. USB 3.2 Gen1 Type-C Port
9. Kensington® Lock Hole
10. HDMI 2.0 Port
11. Power Jack (DC IN)
12. DisplayPort
13. LAN Ports
14. COM 1 Port (RS232/RS422/RS485)
15. COM 2 Port (RS232 only)
16. Clear CMOS & Power Button & +5V

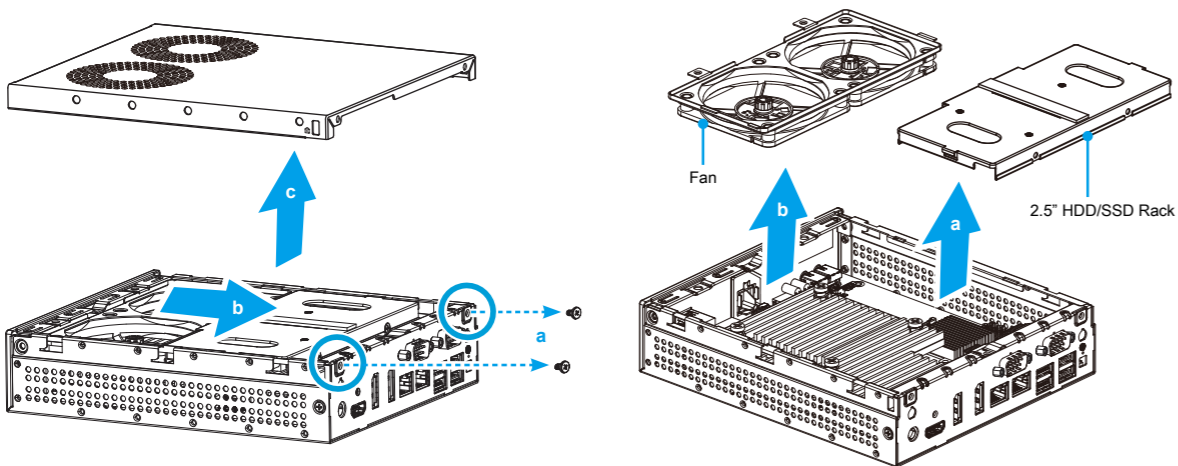
Hardware Installation

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 \ 硬件安裝

A. Begin Installation

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

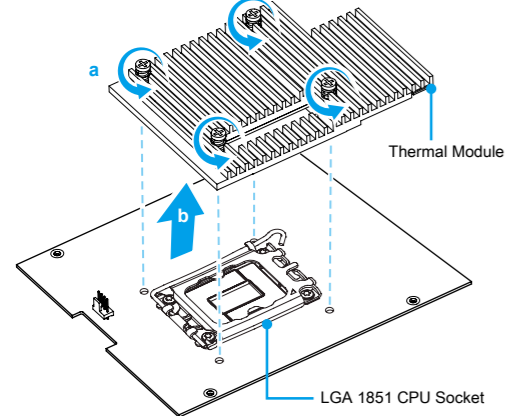
1. Unscrew the two screws of the chassis cover. Slide the cover backwards and upwards.
2. As shown, remove the 2.5" HDD/SSD rack and the fan. Remove the adhesive tape that secures the Serial ATA and power cable to the rack.



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

B. CPU and ICE Module Installation

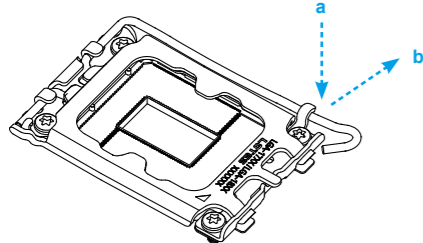
1. Unfasten the four thermal module attachment screws and remove the thermal module from the chassis and put it aside.



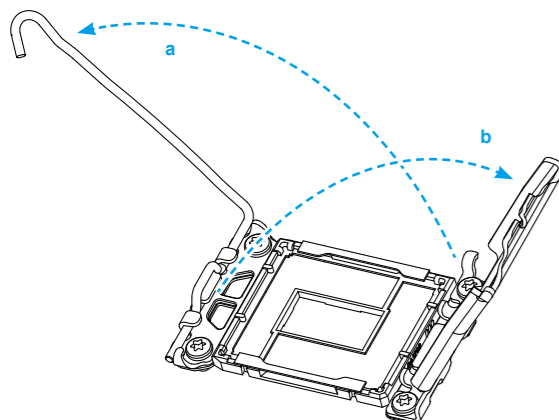
➤ Follow the steps below to correctly install the CPU into the motherboard CPU socket.

⚠ 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.

2. Unlock and raise the socket lever.

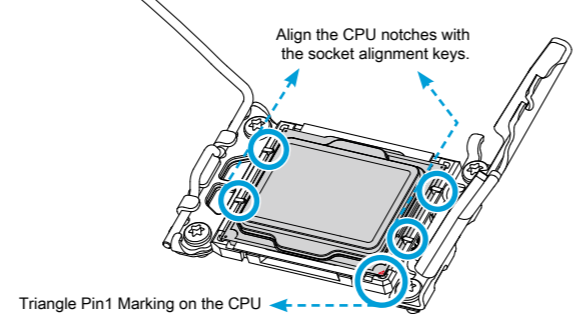


3. Lift the metal load plate off the CPU socket.



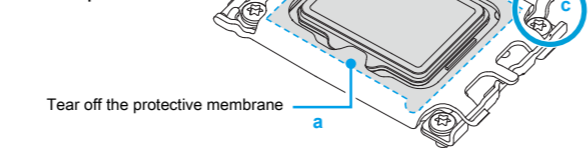
⚠ DO NOT touch the socket contacts. To protect the CPU socket, always use the protective socket cover when the CPU is not installed.

4. 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.

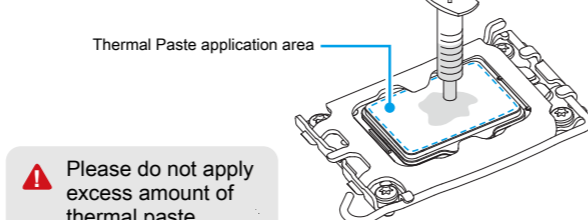


⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

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

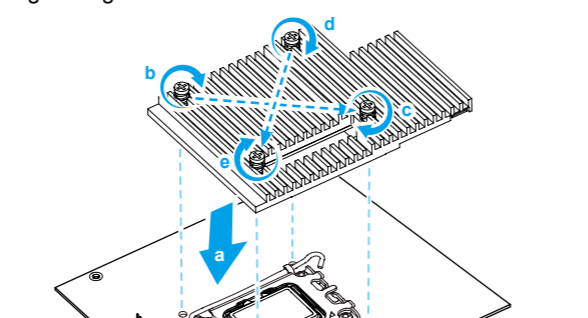


6. Spread thermal paste evenly on the CPU surface.



⚠ Please do not apply excess amount of thermal paste.

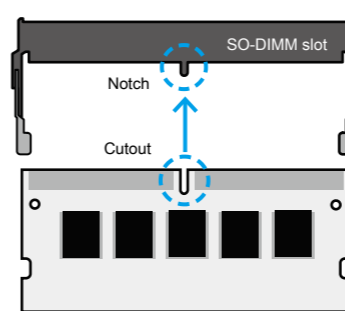
7. Screw the thermal module to the motherboard. Note to press down on the opposite diagonal corner while tightening each screw.



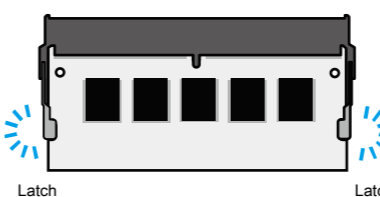
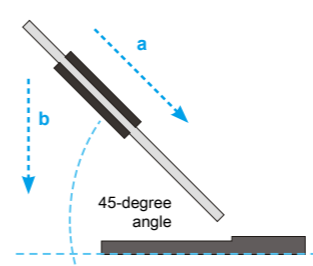
C. Memory Module Installation

⚠ This motherboard does only support 1.1 V DDR5 SO-DIMM memory modules.

1. Locate the SO-DIMM slots on the motherboard.
2. Align the notch of the memory module with the one of the relevant memory slot.



3. Gently insert the module into the slot in a 45-degree angle.
4. Carefully push down the memory module until it snaps into the locking mechanism.

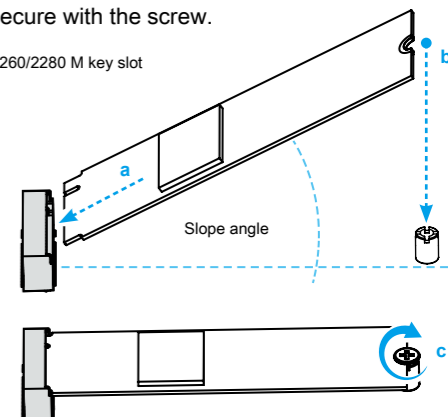


5. Repeat the above steps to install an additional memory module, if required.

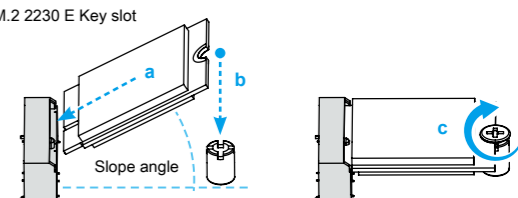
D. M.2 Device Installation

1. Locate the M.2 key slots on the motherboard.
2. Install the M.2 device into the M.2 slot and secure with the screw.

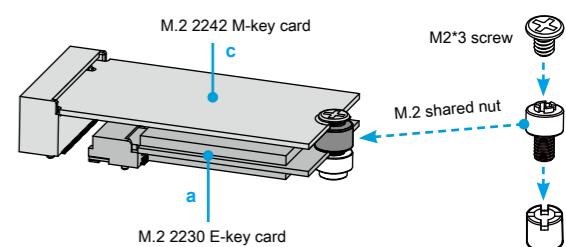
➤ M.2 2242/2260/2280 M key slot



➤ M.2 2230 E Key slot

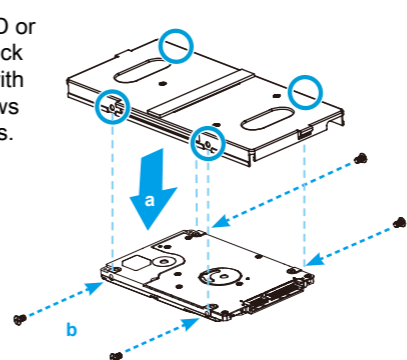


⚠ When installing M.2 2242 M-key and M.2 2230 E-key at the same time, please use "M.2 shared nut" (see picture) to lock M.2 2230 E-key card on socket, then install M.2 2242 M-key card by M2\*3 screw as the next step.

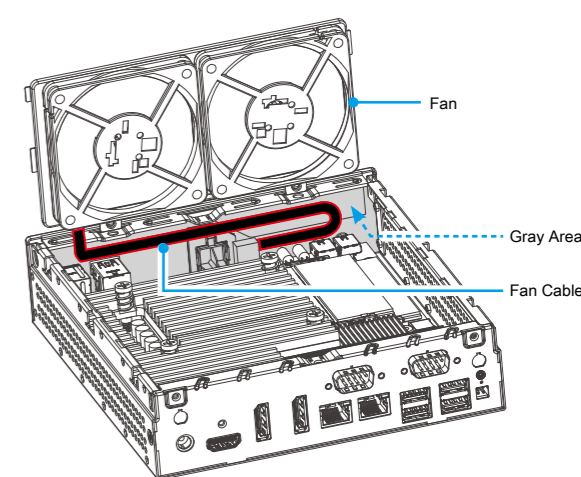


E. FAN and HDD or SSD Installation

1. Place an HDD or SSD in the rack and secure with the four screws from the sides.

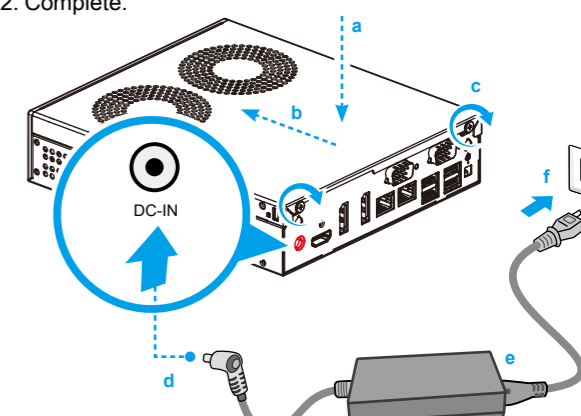


2. As shown, place the fan cable inside the chassis (gray area), then replace the fan in the chassis.



F. Complete

1. Please replace and affix the case cover with two screws, 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 in accordance with the laws of your country.  
 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，以相同或同等的電池更換。請根據您所在國家/地區的法律規定處理廢電池。  
 Das unkorrekte Austauschen der Batterie kann diesen Computer beschädigen. Ersetzen Sie die Batterie nur durch den gleichen Typ oder ein gleichwertiges, von Shuttle empfohlenes Modell. Entsorgen Sie gebrauchte Batterien gemäß den gesetzlichen Vorschriften in Ihrem Land.  
 Ne pas remplacer correctement la pile peut endommager l'ordinateur. Remplacez-la uniquement par un modèle identique ou un équivalent comme recommandé par Shuttle. Éliminez les piles usagées conformément à la législation en vigueur dans votre pays.

La sustitución incorrecta de la batería puede dañar este equipo. Sustituya la batería únicamente por una igual o equivalente recomendada por Shuttle. Elimine las pilas usadas de acuerdo con los requisitos legales de su país.  
 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。使用済みのバッテリーは、お住みの国の法律に従って処分してください。  
 Неправильная замена батареи может привести к повреждению компьютера. Батарея должна соответствовать стандарту производителя Shuttle или быть идентичной предыдущей. Утилизируйте использованные батареи в соответствии с законодательством вашей страны.  
 更換電池方式錯誤可能會損壞本電腦。僅能依 Shuttle 的建議，以相同或同等的電池更換。請根據您所在國家/地區的法律規定處理廢電池。

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.

**WARNING** THIS PRODUCT CONTAINS A BUTTON BATTERY  
 If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours. Keep batteries out of reach of children. If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

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。

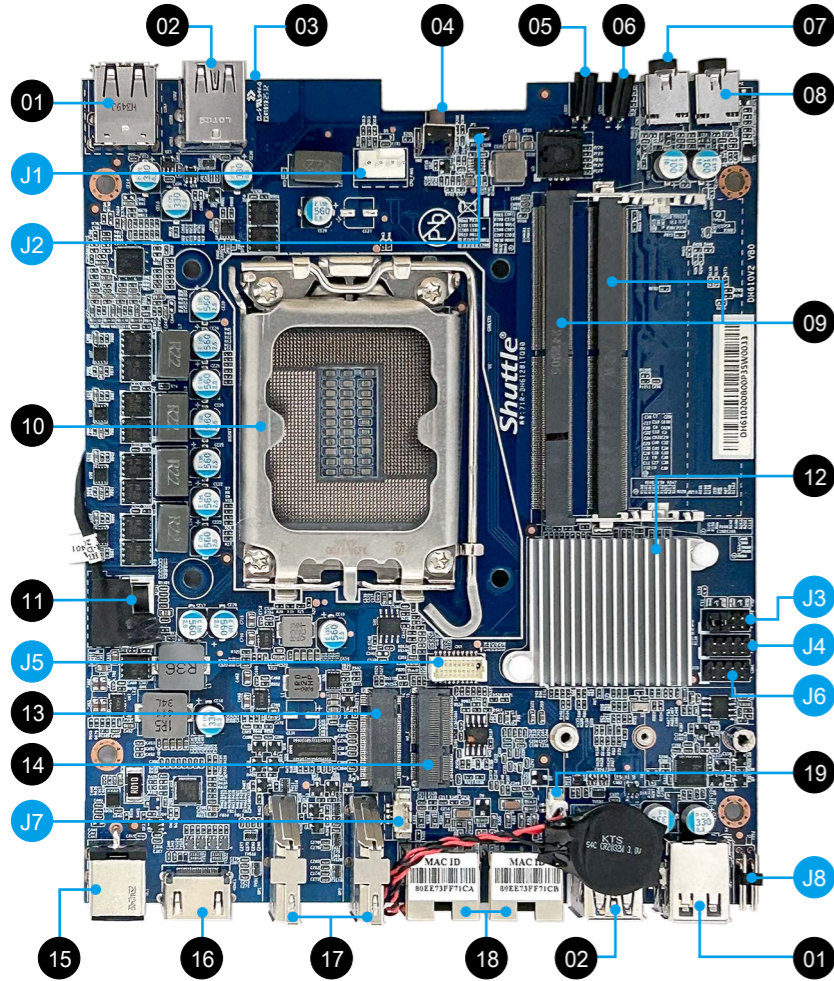
注意：仅适用于海拔 2000m 以下安全使用，在海拔 2000m 以上使用时，可能有安全隐患。

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。  
 \* The equipment was evaluated for use in a maximum air ambient temperature of 40 °C. 產品宣告最大適用環境溫度為 40 °C。

**The product contains non-replaceable batteries**  
 The statement "remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate."  
 (a) Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.  
 (b) Even used batteries may cause severe injury or death.  
 (c) Call a local poison control center for treatment information.  
 (d) Indicating the compatible battery type CR2032.  
 (e) Indicating the nominal battery voltage.  
 (f) Non-rechargeable batteries are not to be recharged.  
 (g) Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.





- 01. 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 порты  
 USB 2.0 端口
- 02. USB 3.2 Gen1 Type-A Ports  
 USB 3.2 Gen1 Type-A 連接埠  
 USB 3.2 Gen1 Typ-A Anschlüsse  
 Prises USB 3.2 Gen1 Type-A  
 Puertos USB 3.2 Gen1 tipo A  
 USB 3.2 Gen1 Type-A ポート  
 USB 3.2 Gen1 Type-A порты  
 USB 3.2 Gen1 Type-A 端口
- 03. USB 3.2 Gen1 Type-C Port  
 USB 3.2 Gen1 Type-C 連接埠  
 USB 3.2 Gen1 Typ-C Anschlüsse  
 Prise USB 3.2 Gen1 Type-C  
 Puerto USB 3.2 Gen1 tipo C  
 USB 3.2 Gen1 Type-C ポート  
 USB 3.2 Gen1 Type-C порт  
 USB 3.2 Gen1 Type-C 端口
- 04. Power Button \ 電源按鈕  
 Ein-/Aus-Button  
 Bouton d'alimentation  
 Botón de encendido  
 電源スイッチ  
 Кнопка питания \ 电源按钮
- 05. Hard disk drive LED  
 硬碟指示燈 \ Festplatten-LED  
 Indicateur disque dur  
 Diodo LED del disco duro  
 ハードディスクドライブ LED  
 LED-индикатор жесткого диска  
 硬盘指示灯
- 06. Power LED  
 電源指示燈  
 Betriebsanzeige-LED  
 Indicateur alimentation  
 LED de encendido  
 電源 LED  
 LED-индикатор питания  
 电源指示灯
- 07. Headphones  
 耳機孔  
 Kopfhörer-Ausgang  
 Prise casque  
 Auriculares  
 イヤホン  
 Гнездо для наушников  
 耳机孔
- 08. MIC-in  
 麥克風插孔  
 Mikrofon-Eingang  
 Entrée Micro  
 Micrófono  
 マイク  
 Гнездо для микрофона  
 麦克风插孔
- 09. Processor socket LGA1700  
 LGA1700 處理器插座  
 Socket für LGA1700-CPU's  
 Socket Processeur LGA1700  
 Zócalo LGA1700 de CPU  
 プロセッサソケット LGA1700  
 Разъем процессора LGA1700  
 LGA1700 处理器插座
- 10. Processor socket LGA1700  
 LGA1700 處理器插座  
 Socket für LGA1700-CPU's  
 Socket Processeur LGA1700  
 Zócalo LGA1700 de CPU  
 プロセッサソケット LGA1700  
 Разъем процессора LGA1700  
 LGA1700 处理器插座
- 11. SATA connector  
 SATA 排線插座  
 SATA-Anschluss  
 Connecteur SATA  
 Base de conexiones SATA  
 SATA コネクタ  
 SATA разъем  
 SATA 接口
- 12. Intel® H610 Chipset  
 Intel® H610 晶片組  
 Intel® H610 Chipsatz  
 Intel® H610 Chipset  
 Intel® H610 Conjunto de chips  
 Intel® H610 Чипсет  
 Набор микросхем Intel® H610  
 Intel® H610 芯片組
- 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 키스ล็อต  
 Slot M.2 2242/2260/2280 M ключ
- 14. M.2 2230 E key slot (supports CNVi)  
 M.2 2230 E key 插槽 (支持 CNVi)  
 M.2-2230 (E) Steckplatz (unterstützt CNVi)  
 Emplacement M.2 2230 E (compatible CNVi)  
 Ranura M.2 2230 E (soporta CNVi)  
 M.2 2230 E 키스ล็อต (CNVi 対応)  
 Слот M.2 2230 E ключ (поддержка CNVi)  
 M.2 2230 E key 插槽 (支持 CNVi)
- 15. Power Jack (DC IN) \ DC 電源連接埠  
 DC-Stromanschluss \ Prise alimentation (CC)  
 Conexión de la fuente de alimentación (DC IN)  
 Гнездо для подключения питания (DC IN)  
 DC 電源ポート \ 电源插孔 (直流电输入)
- 16. 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 端口
- 17. DisplayPort  
 DisplayPort 連接埠  
 DisplayPort  
 Prise DisplayPort  
 DisplayPort  
 디스플레이포트  
 DisplayPort 端口
- 18. LAN Ports  
 網路連接埠  
 Netzwerk-Anschlüsse  
 Prises LAN  
 Puertos LAN  
 LAN 端口
- 19. Battery connector  
 電池插座  
 Anschluss für die Batterie  
 Connecteur de pile  
 Conector de batería  
 Батарея-конектор  
 Разъем для батареи  
 電池接口

- 06. Power LED  
 電源指示燈  
 Betriebsanzeige-LED  
 Indicateur alimentation  
 LED de encendido  
 電源 LED  
 LED-индикатор питания  
 电源指示灯
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 Prise casque  
 Auriculares  
 イヤホン  
 Гнездо для наушников  
 耳机孔
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 Entrée Micro  
 Micrófono  
 マイク  
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 麦克风插孔
- 09. DDR5 SO-DIMM slots  
 DDR5 SO-DIMM 插槽  
 DDR5 SO-DIMM Steckplätze  
 Slot mémoire SO-DIMM DDR5  
 zócalo de DDR5 SO-DIMM  
 DDR5 SO-DIMM 插槽  
 Slot памяти DDR5 SO-DIMM  
 DDR5 SO-DIMM 插槽
- 10. Processor socket LGA1700  
 LGA1700 處理器插座  
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 HDMI 2.0 連接埠  
 HDMI 2.0-Anschluss  
 Prise HDMI 2.0  
 Puerto HDMI 2.0  
 HDMI 2.0 端口
- 17. DisplayPort  
 DisplayPort 連接埠  
 DisplayPort  
 Prise DisplayPort  
 DisplayPort  
 디스플레이포트  
 DisplayPort 端口
- 18. LAN Ports  
 網路連接埠  
 Netzwerk-Anschlüsse  
 Prises LAN  
 Puertos LAN  
 LAN 端口
- 19. Battery connector  
 電池插座  
 Anschluss für die Batterie  
 Connecteur de pile  
 Conector de batería  
 Батарея-конектор  
 Разъем для батареи  
 電池接口

J1 Fan connector \ 風扇連接埠 \ Lüfteranschluss  
 Connecteur ventilateur \ Conector del ventilador  
 FAN コネクタ \ Разъем вентилятора \ 風扇插座

CPU_FAN1	
Pin	Signal Name
1	GND
2	+12V
3	FAN IO
4	FAN PWM

J2 AC auto power-on \ 回電自動開啟電源  
 Automatisches Einschalten bei Spannungsversorgung  
 Démarrage automatique à la mise sous tension  
 Encendido automático con suministro de corriente  
 AC自動電源オン \ 回电自动开启电源  
 Восстановление AC Авто включение

JP1	
Pin	Signal Name
1	AUTO_PWR_ON
2	GND

J3 COM 1 & COM 2 power switch  
 COM 1 & COM 2 電源切換  
 Konfiguration von COM 1 & COM 2  
 Gestion de l'alimentation des COM 1 & COM 2  
 COM 1 & COM 2 Enchufe Interruptor  
 COM 1 & COM 2 電源 スイッチ  
 Переключатель питания COM 1 & COM 2  
 COM 1 & COM 2 电源切换

COM PORT Pin 9 "Ring Indicator" (RI) configuration:  
 Configure COM 1 with the first jumper:  
 - Short Pin 1-2: Pin 9 = RI1 (default)  
 - Short Pin 5-7: Pin 9 = +5V  
 - Short Pin 7-9: Pin 9 = +12V  
 Configure COM 2 with the second jumper:  
 - Short Pin 3-4: Pin 9 = RI2 (default)  
 - Short Pin 6-8: Pin 9 = +5V  
 - Short Pin 8-10: Pin 9 = +12V

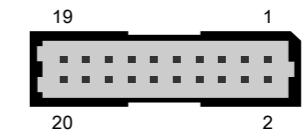
JP2	
Pin	Signal Name
1	XRI1 (to transceiver IC)
2	COM_-XRI1 (to COM1 Header)
3	XRI2 (to transceiver IC)
4	COM_-XRI2 (to COM2 Header)
5	+5P0V_S0 (Power)
6	+5P0V_S0 (Power)
7	COM1_PWR (to COM1 Header)
8	COM2_PWR (to COM2 Header)
9	+12P0V_S0 (Power)
10	+12P0V_S0 (Power)

J4 COM port \ COM 插座 \ COM-Ausgang \ Port COM  
 Puerto COM \ COM へッダ \ COM-порты \ COM 接头

COM2			
Pin	Signal Name	Pin	Signal Name
1	DCD	6	DSR
2	RX	7	RTS
3	TX	8	CTS
4	DTR	9	RI
5	GND	10	NULL

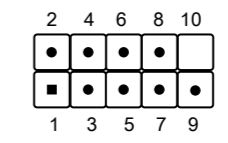
J5 VGA connector \ VGA 插座 \ VGA-Anschluss \ Connecteur VGA  
 Conector del VGA \ VGA コネクター \ VGA разъем \ VGA 接头

CN3					
Pin	Signal Name	Pin	Signal Name	Pin	Signal Name
1	GND	2	GND	3	VGA_SCL
4	GND	5	VGA_SDA	6	GND
7	GND	8	GND	9	CRT_VSYNC
10	GND	11	CRT_HSYNC	12	GND
13	GND	14	GND	15	BOU-O
16	VGA_PWR	17	GOUT-O	18	VGA_PWR
19	ROUT-O	20	VGA_PWR		



J6 COM port  
 COM 插座  
 COM-Ausgang  
 Port COM  
 Puerto COM  
 COM へッダ  
 COM-порты  
 COM 接头

COM1			
Pin	Signal Name		
	RS232	RS422	RS485
1	DCD	TXD-	DATA-
2	RXD	TXD+	DATA+
3	TXD	RXD+	NA
4	DTR	RXD-	NA
5	GND	GND	GND
6	DSR	NA	NA
7	RTS	NA	NA
8	CTS	NA	NA
9	RI	NA	NA
10	NULL	NULL	NULL



J7 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 扁平电缆插座

CN6	
Pin	Signal Name
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)



J8 Clear CMOS & power button & +5V  
 清除 CMOS & 電源按鈕 & +5V  
 Clear CMOS & Einschalt-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 & 电源按钮 & +5V

SW1	
Pin	Signal Name
1	RTC Reset
2	VCC_AUX (Power source 5.0V/0.5A) (Enable in S0 mode only)
3	GND
4	Power SW

