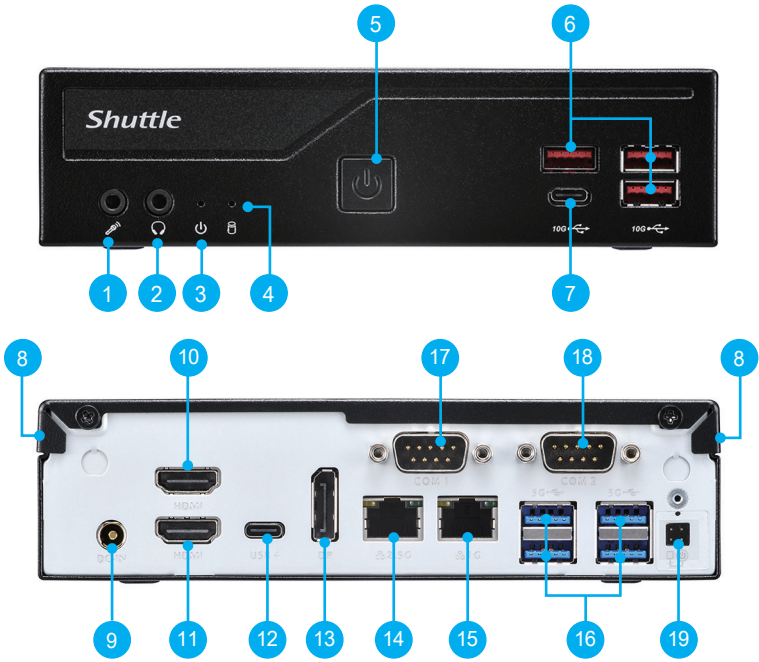


More information on this product can be found at: <https://bit.ly/DB860-D>
更多本產品資訊，請蒞臨：<https://bit.ly/DB860-D>
Weitere Informationen zu diesem Produkt finden Sie unter: <https://bit.ly/DB860-D>
Pour plus d'informations sur ce produit, visitez: <https://bit.ly/DB860-D>

Puede encontrar más información sobre este producto en: <https://bit.ly/DB860-D>
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/DB860-D>
Для получения дополнительной информации об этом продукте перейдите по ссылке: <https://bit.ly/DB860-D>
更多本产品信息，请访问：<https://bit.ly/DB860-D>

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 Gen2 Type-A Ports
7. USB 3.2 Gen2 Type-C Port
8. Kensington® Lock Hole
9. Power Jack (DC IN)
10. HDMI 2.0 Port
11. HDMI 2.1 Port
12. USB 4.0 Type-C Port
13. DisplayPort
14. LAN Port (2.5G)
15. LAN Port (1G)
16. USB 3.2 Gen1 Type-A Ports
17. COM 1 Port (RS232/RS422/RS485)
18. COM 2 Port (RS232 only)
19. Clear CMOS & Power Button & +5V

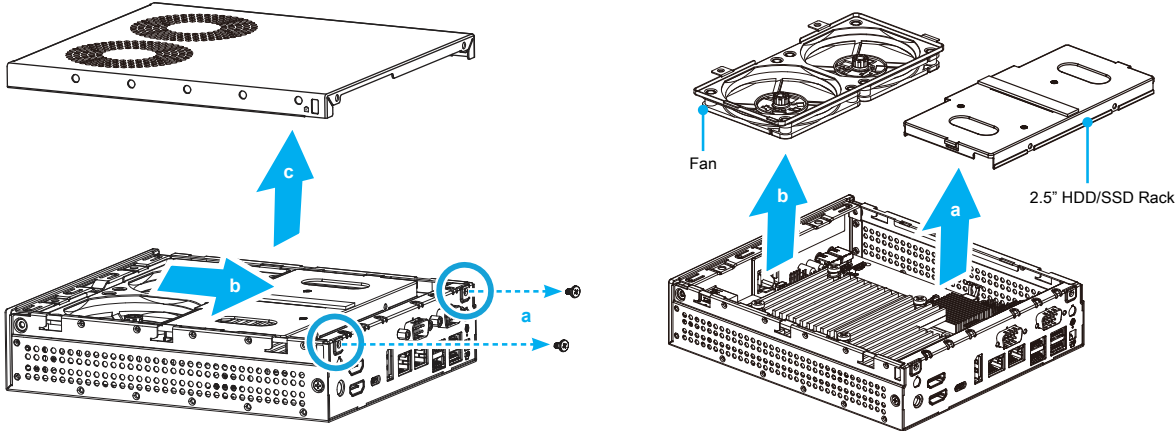
Hardware Installation

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.

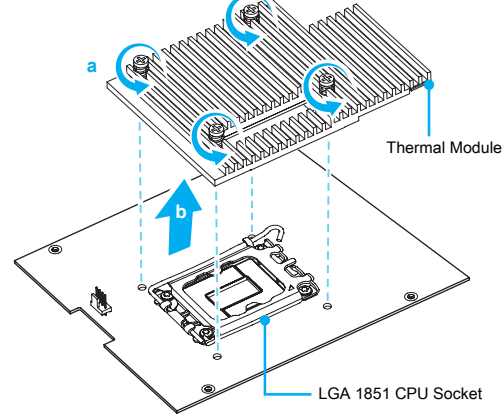
1. Unscrew the two screws of the chassis cover. Slide the cover backwards and upwards.
2. As shown, remove the 2.5" HDD/SSD rack and the fan. Remove the adhesive tape that secures the Serial ATA and power cable to the rack.



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

B. CPU and ICE Module Installation

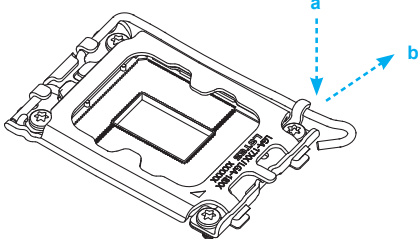
1. Unfasten the four thermal module attachment screws and remove the thermal module from the chassis and put it aside.



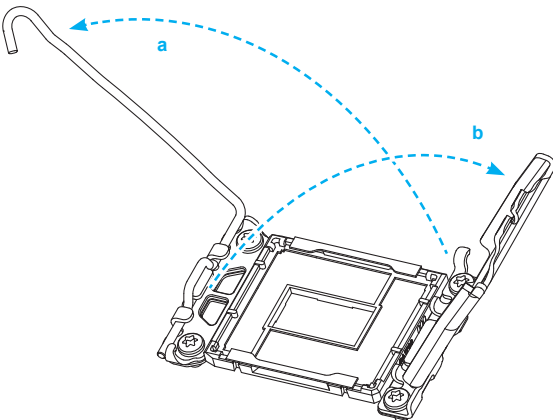
➤ Follow the steps below to correctly install the CPU into the motherboard CPU socket.

⚠ 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.

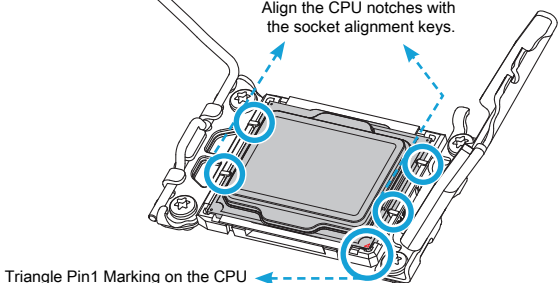


3. Lift the metal load plate off the CPU socket.



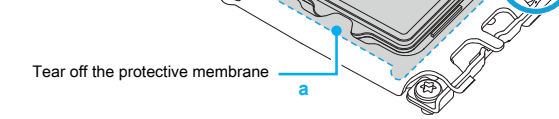
⚠ DO NOT touch the socket contacts. To protect the CPU socket, always use the protective socket cover when the CPU is not installed.

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.

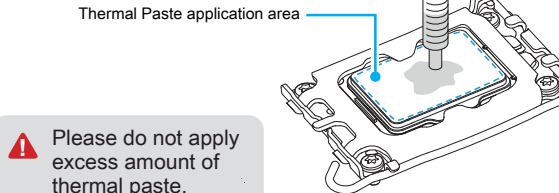


⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

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.

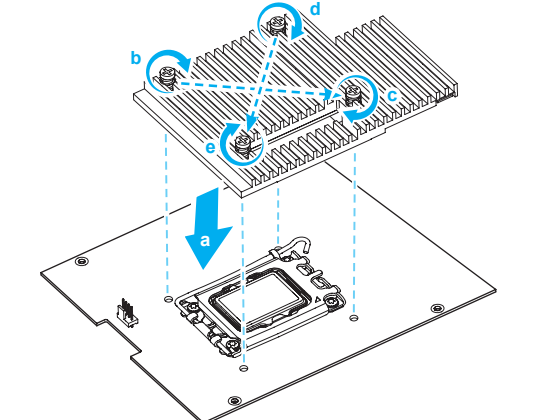


6. Spread thermal paste evenly on the CPU surface.



⚠ Please do not apply excess amount of thermal paste.

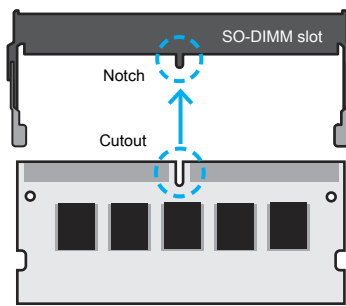
7. Screw the thermal module to the motherboard. Note to press down on the opposite diagonal corner while tightening each screw.



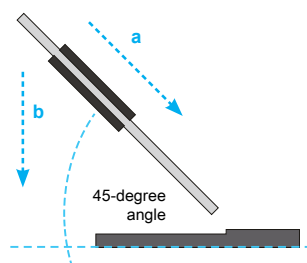
C. Memory Module Installation

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

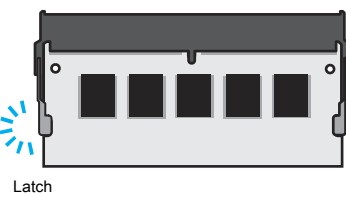
1. Locate the SO-DIMM slots on the motherboard.
2. Align the notch of the memory module with the one of the relevant memory slot.



3. Gently insert the module into the slot in a 45-degree angle.



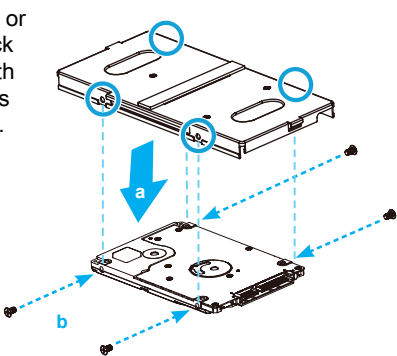
4. Carefully push down the memory module until it snaps into the locking mechanism.



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

E. HDD or SSD Installation

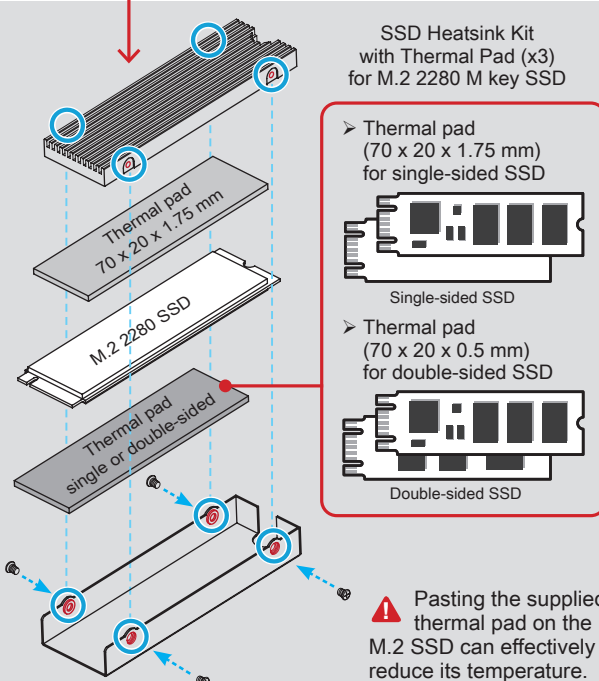
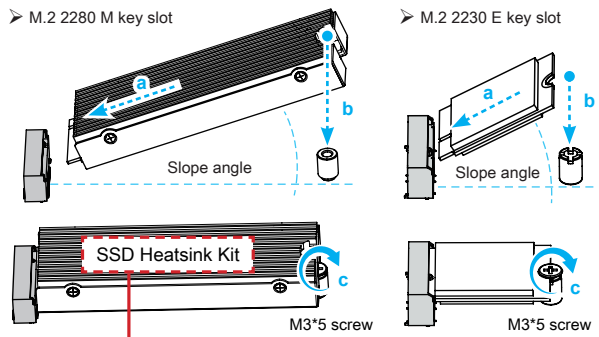
1. Place an HDD or SSD in the rack and secure with the four screws from the sides.



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

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.



⚠ Pasting the supplied thermal pad on the M.2 SSD can effectively reduce its temperature.

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.

⚠ 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.



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。

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。

The product contains non-replaceable batteries

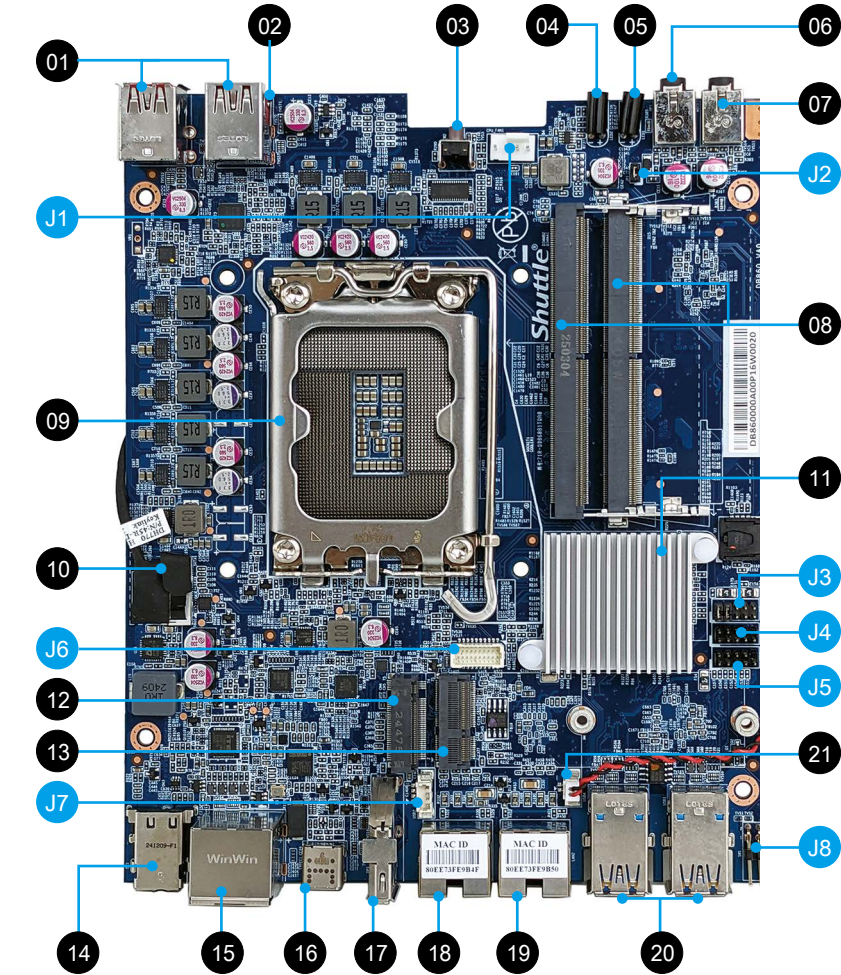
The statement "remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate."

- (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.



Motherboard Illustration

主機板說明 \ Mainboard-Abbildung \ Illustration de la carte mère \ Ilustración de la placa base
メインボード図 \ Материнская плата. Иллюстрация \ 主机板说明



08. 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 スロット
Слот памяти DDR5 SO-DIMM
DDR5 SO-DIMM 插槽

09. Processor socket LGA1851
LGA1851 處理器插座
Socket für LGA1851-CPUs
Socket Processeur LGA1851
Zócalo LGA1851 de CPU
Процессорный LGA1851
Разъем процессора LGA1851
LGA1851 处理器插座

10. 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

11. Intel® B860 Chipset
Intel® B860 晶片組
Intel® B860 Chipsatz
Intel® B860 Chipset
Intel® B860 Conjunto de chips
Intel® B860 チップセット
Набор микросхем Intel® B860
Intel® B860 芯片組

12. M.2 2280 M key slot
M.2 2280 M key 插槽
M.2-2280 (M) Steckplatz
Emplacement M.2 2280 M
Ranura M.2 2280 M
M.2 2280 M キースロット
Слот M.2 2280 M ключ
M.2 2280 M key 插槽

13. M.2 2230 E key slot (supports CNVi)
M.2 2230 E key 插槽 (支援 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 キースロット (CNVi 対応)
Слот M.2 2230 E ключ (поддержка CNVi)
M.2 2230 E key 插槽 (支持 CNVi)

14. Power Jack (DC IN)
DC 電源連接埠
DC-Stromanschluss
Prise alimentation DC
Conexión de la fuente de alimentación (CC)
DC 電源ポート
Гнездо для подключения питания (DC IN)
电源插孔 (直流电输入)

15. HDMI 2.0 / 2.1 Port
HDMI 2.0 / 2.1 連接埠
HDMI 2.0 / 2.1-Anschluss
Prise HDMI 2.0 / 2.1
Puerto HDMI 2.0 / 2.1
HDMI 2.0 / 2.1 端口
HDMI 2.0 / 2.1 порт
HDMI2.0 / 2.1 端口

16. USB 4.0 Type-C Port
USB 4.0 Type-C 連接埠
USB 4.0 Typ-C-Anschluss
Prise USB 4.0 Type-C
Puerto USB 4.0 tipo C
USB 4.0 Type-C 端口
USB 4.0 Type-C порт
USB 4.0 Type-C 端口

17. DisplayPort
DisplayPort 連接埠
DisplayPort
Prise DisplayPort
DisplayPort
ディスプレイポート
DisplayPort
DisplayPort 端口

18. LAN (2.5G) Port
網路 (2.5G) 連接埠
Netzwerk (2.5G)-Anschluss
Prise LAN (2.5G)
Puerto LAN (2.5G)
LAN (2.5G) 端口
Сетевые LAN (2.5G) порт
LAN (2.5G) 端口

19. LAN (1G) Port
網路 (1G) 連接埠
Netzwerk (1G)-Anschluss
Prise LAN (1G)
Puerto LAN (1G)
LAN (1G) 端口
Сетевые LAN (1G) порт
LAN (1G) 端口

20. 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 端口
USB 3.2 Gen1 Type-A 端口
USB 3.2 Gen1 Type-A 端口

21. Battery connector \ 電池插座
Anschluss für die Batterie \ Connecteur de pile
Conector de batería \ Баттерий-коектёр
Разъем для батареи \ 電池接头

01. USB 3.2 Gen2 Type-A Ports
USB 3.2 Gen2 Type-A 連接埠
USB 3.2 Typ-A-Anschlüsse
Prises USB 3.2 Gen2 Type-A
Puertos USB 3.2 Gen2 tipo A
USB 3.2 Gen2 Type-A 端口
USB 3.2 Gen2 Type-A 端口
USB 3.2 Gen2 Type-A 端口

02. USB 3.2 Gen2 Type-C Port
USB 3.2 Gen2 Type-C 連接埠
USB 3.2 Gen2 Typ-C-Anschluss
Prise USB 3.2 Gen2 Type-C
Puerto USB 3.2 Gen2 tipo C
USB 3.2 Gen2 Type-C 端口
USB 3.2 Gen2 Type-C 端口
USB 3.2 Gen2 Type-C 端口

03. 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

04. 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

05. Power LED \ 電源指示燈
Betriebsanzeige-LED
Indicateur alimentation
LED de encendido \ 電源 LED
LED-индикатор питания \ 源指示灯

06. Headphones \ 耳機孔
Kopfhörer-Ausgang \ Prise casque
Auriculares \ イヤホン
Гнездо для наушников \ 耳机孔

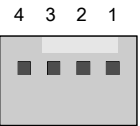
07. MIC-in \ 麥克風插孔
Mikrofon-Eingang \ Entrée Micro
Micrófono \ マイク
Гнездо для микрофона \ 麦克风插孔

Jumper Settings

Jumper 設定 \ Jumper-Einstellungen \ Réglages cavaliers \ Configuración de los puentes
ジャンパー設定 \ Настройки переключателя \ Jumper 設定

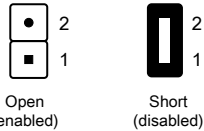
J1 Fan connector \ 風扇連接埠 \ Lüfteranschluss
Connecteur ventilateur \ Conector del ventilador
FAN コネクタ \ Разъем вентилятора \ 風扇插座

CPU_FAN1	
Pin	Signal Name
1	GND
2	+12V
3	FAN_IO
4	FAN_CTL



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

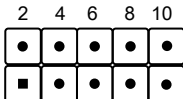
COM PORT Pin 9 "Ring Indicator" (RI) configuration:
Configure COM 1 with the first jumper:

- 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:

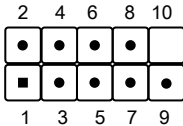
- Short Pin 3-4: Pin 9 = RI2 (default)
- Short Pin 6-8: Pin 9 = +5V
- Short Pin 8-10: Pin 9 = +12V

JP2			
Pin	Signal Name	Pin	Signal Name
1	RI1	2	COM1_RI-
3	RI2	4	COM2_RI-
5	+5V	6	+5V
7	RI1_PWR	8	RI2_PWR
9	+12V	10	+12V

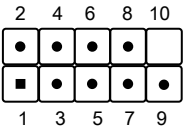


J4 COM port \ COM 插座 \ COM-Ausgang \ Port COM
Puerto COM \ COM 埠 \ COM-порты \ COM 接头

COM2 (RS232)			
Pin	Signal Name	Pin	Signal Name
1	DCD-	6	DSR-
2	RXD	7	RTS-
3	TXD	8	CTS-
4	DTR-	9	RI-
5	GND	10	NULL



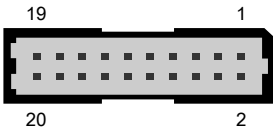
J5 COM port
COM 插座
COM-Ausgang
Port COM
Puerto COM
COM 埠
COM-порты
COM 接头



COM1 (RS232/RS422/RS485)			
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

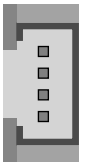
J6 VGA connector \ VGA 插座 \ VGA-Anschluss \ Connecteur VGA
Conector del VGA \ VGA コネクタ \ VGA разъем \ VGA 接头

VGA1					
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	VGA_VSYNC
10	GND	11	VGA_HSYNC	12	GND
13	GND	14	GND	15	VGA_BOUT
16	+5V	17	VGA_GOUT	18	+5V
19	VGA_ROUT	20	+5V		



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

USB2	
Pin	Signal Name
1	GND
2	USB_DP
3	USB_DN
4	+5V



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 В
清除 CMOS & 电源按钮 & +5V

SW1	
Pin	Signal Name
1	RTC_RST#
2	+5V
3	GND
4	PWR_SW#

