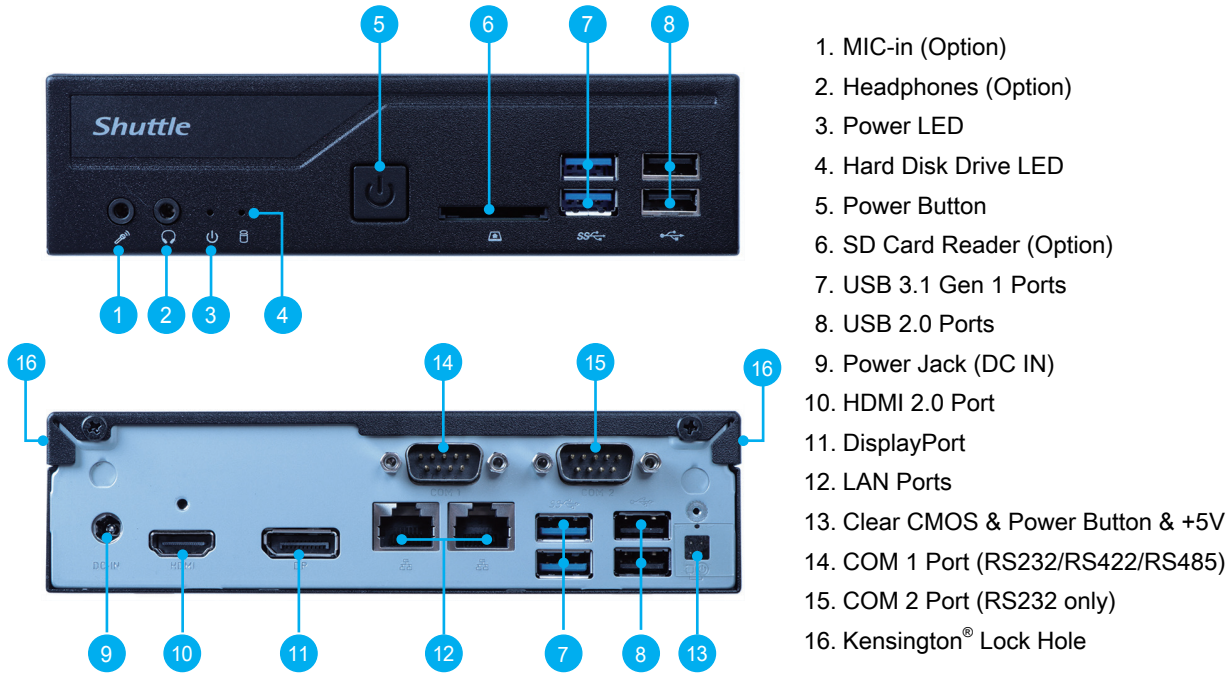


More information on this product can be found at: <http://bit.ly/DH310V2>
更多本產品資訊，請造臨： <http://bit.ly/DH310V2>
Weitere Informationen zu diesem Produkt finden Sie unter: <http://bit.ly/DH310V2>
Pour plus d'informations sur ce produit, visitez: <http://bit.ly/DH310V2>
Puede encontrar más información sobre este producto en: <http://bit.ly/DH310V2>
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/DH310V2>
Для получения дополнительной информации об этом продукте перейдите по ссылке: <http://bit.ly/DH310V2>
更多本产品信息，请访问： <http://bit.ly/DH310V2>

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

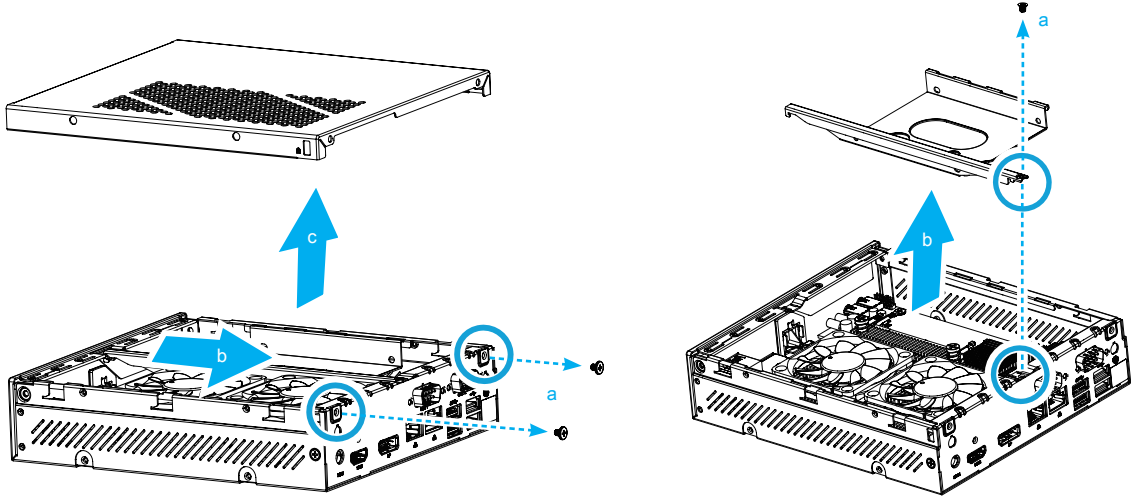


Hardware Installation 硬體安裝 \ Hardware Installation \ Installation du matériel \ Instalación de hardware \ ハードウェアのインストール \ Установка оборудования \ 硬件安装

A. Begin Installation

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

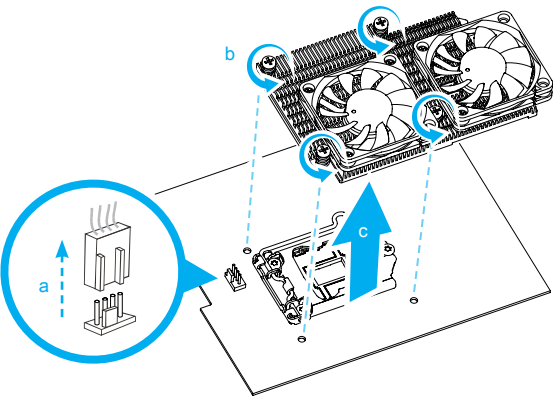
1. Unscrew the two screws of the chassis cover. Slide the cover backwards and upwards.
2. Unfasten the rack mount screw and remove the rack.



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

B. CPU and ICE Module Installation

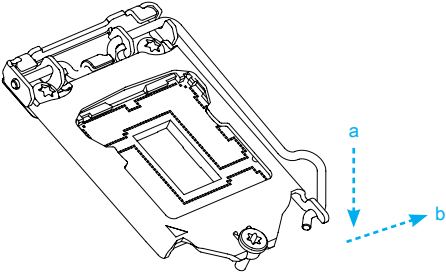
1. Unfasten the four ICE module attachment screws and unplug the fan connector. Remove the ICE module from the chassis and put it aside.



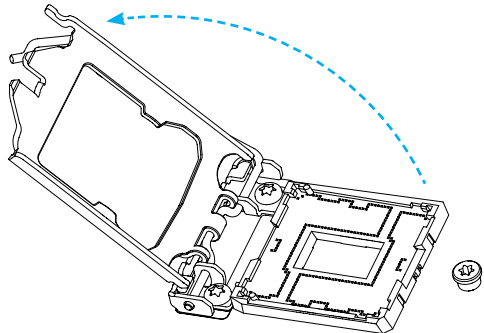
➤ Follow the steps below to correctly install the CPU into the motherboard CPU socket.

⚠ 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.

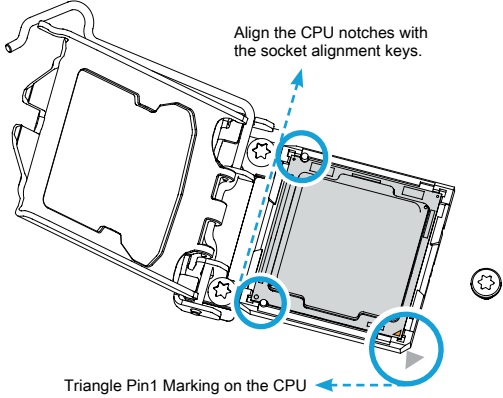


3. Lift the metal load plate on the CPU socket.



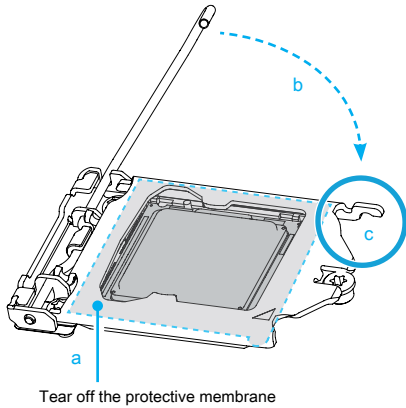
⚠ DO NOT touch the socket contacts. To protect the CPU socket, always use the protective socket cover when the CPU is not installed.

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.

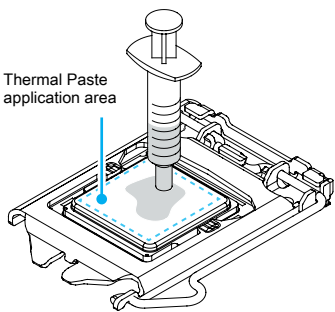


⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

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.

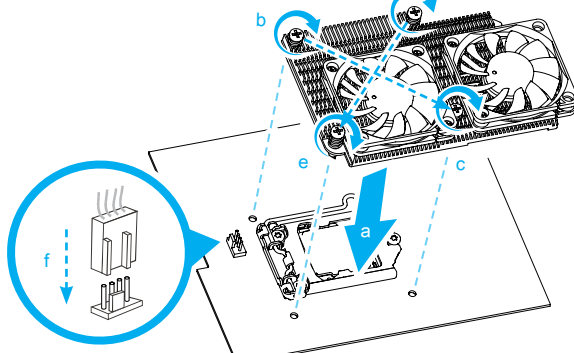


6. Spread thermal paste evenly on the CPU surface.



⚠ Please do not apply excess amount of thermal paste.

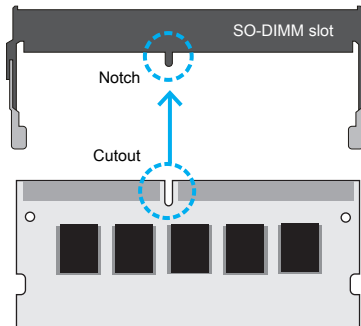
7. Screw the ICE module to the motherboard. Note to press down on the opposite diagonal corner while tightening each screw.
8. Connect the fan.



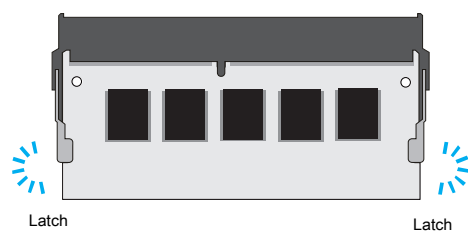
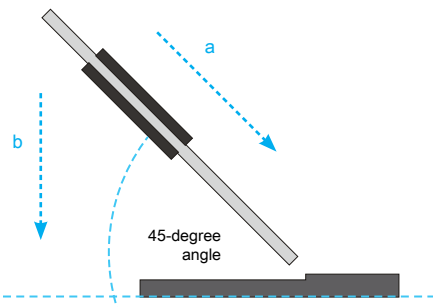
C. Memory Module Installation

⚠ This motherboard does only support 1.2 V DDR4 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.

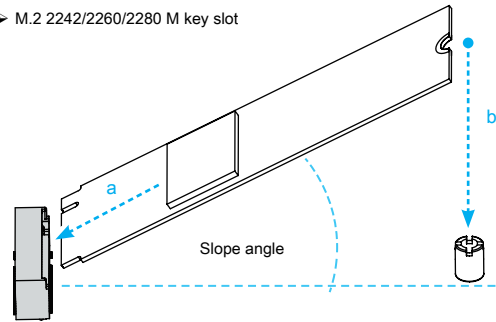


5. Repeat the above steps to install an additional memory module, if required.

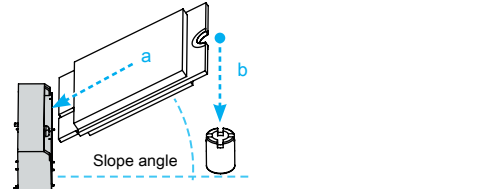
D. M.2 Device Installation

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

➤ M.2 2242/2260/2280 M key slot

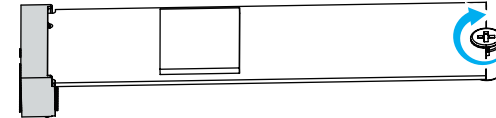


➤ M.2 2230 E Key slot



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

➤ M.2 2242/2260/2280 M key slot

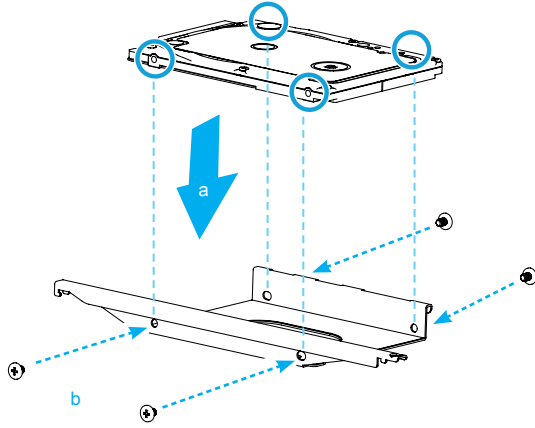


➤ M.2 2230 E Key slot

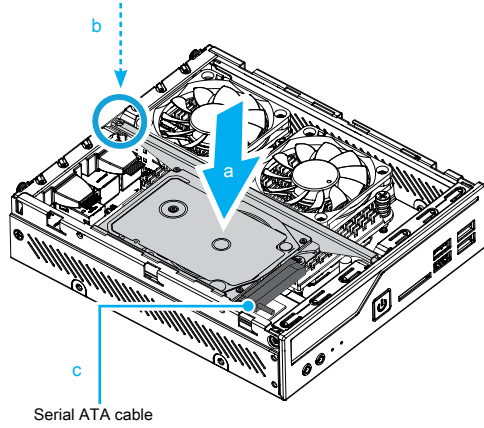


E. HDD or SSD Installation

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

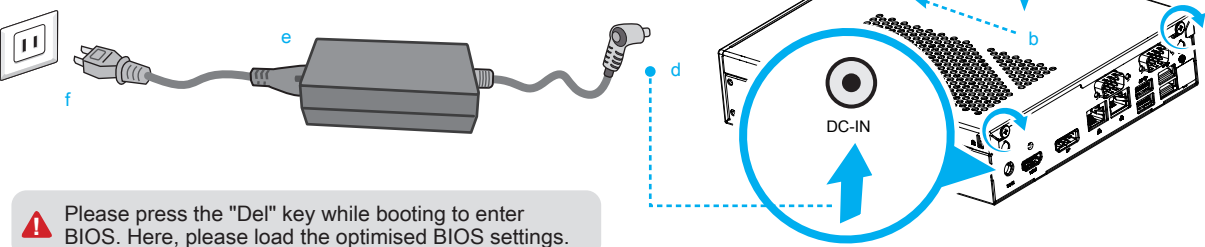


2. Slide the rack back into the chassis and refasten the screws. Connect the Serial ATA cable to the HDD or SSD.



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 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の原因となります。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。
Неправильная замена батареей может привести к повреждению компьютера. Батарея должна соответствовать стандарту производителя Shuttle или быть идентичной предыдущей. Утилизация использованной батареи должна следовать инструкции производителя.
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。

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：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：允许产品使用的最高环境温度 40°C。

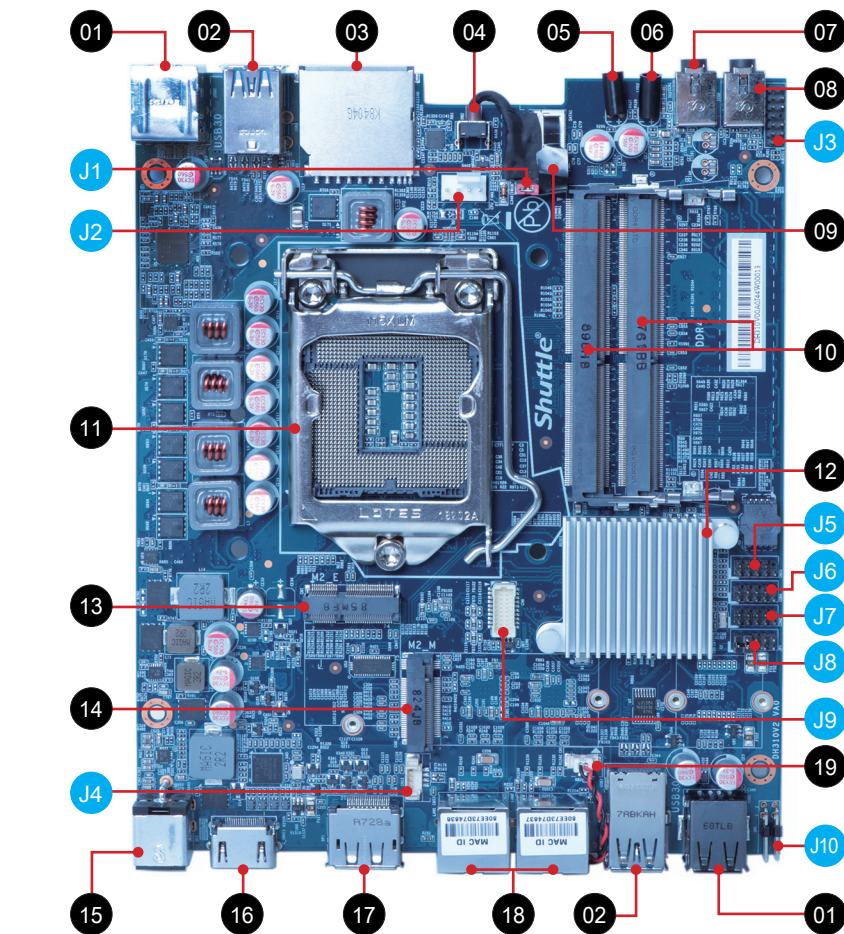
All bundled parts, power cord included, shall not be used without this product.

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。

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.

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

01. USB 2.0 Port
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 3.1 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 порты
USB 3.1 Gen 1 端口
03. SD Card Reader (Option)
SD 讀卡機 (選配)
SD Cardreader (optional)
Lecteur de carte mémoire SD (optionnel)
Lector de tarjetas sd (opcional)
SDカードリーダー (オプション)
Слот считывателя SD-карт (опция)
SD 卡片阅读器 (可选)
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 (Option)
耳機孔 (選配)
Kopfhörer-Anschluss (optional)
Prise casque (optionnel)
Auriculares (opcional)
イヤホン (オプション)
Гнездо для наушников (опция)
耳机孔 (可选)
08. MIC-in (Option)
麥克風插孔 (選配)
Mikrofon-Eingan (optional)
Entrée Micro (optionnel)
Micrófono (opcional)
マイク (オプション)
Гнездо для микрофона (опция)
麥克風插孔 (可选)

09. 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

10. DDR4 SO-DIMM slots
DDR4 SO-DIMM 插槽
DDR4 SO-DIMM Steckplätze
Slot mémoire SO-DIMM DDR4
Zócalo de DDR4 SO-DIMM
DDR4 SO-DIMM スロット
Слот памяти DDR4 SO-DIMM
DDR4 SO-DIMM 插槽
11. Processor socket LGA1151v2
LGA1151v2 處理器插座
Socket für LGA1151v2-CPUs
Socket Processeur LGA1151v2
Zócalo LGA1151v2 de CPU
プロセッサソケット LGA1151v2
Разъем процессора LGA1151v2
LGA1151v2 處理器插座
12. Intel® H310 Chipset
Intel® H310 晶片組
Intel® H310 Chipsatz
Intel® H310 Chipset
Intel® H310 Conjunto de chips
Intel® H310 チップセット
Набор микросхем Intel® H310
Intel® H310 晶片組
13. 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 キースロット
Слот M.2 2230 E ключ
M.2 2230 E key 插槽

14. 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 キースロット
Слот M.2 2242/2260/2280 M ключ
M.2 2242/2260/2280 M key 插槽
15. 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 端口
Гнездо для подключе ния питания (DC IN)
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
HDMI 2.0 連接端口
17. DisplayPort
DisplayPort 連接埠
DisplayPort-Anschluss
Prise DisplayPort
DisplayPort
ディスプレイポート
DisplayPort
DisplayPort 連接端口

18. LAN Ports
網路連接埠
Netzwerk-Anschlüsse
Prises LAN
Puertos LAN
LAN 端口
Сетевые LAN-порты
LAN 連接端口
19. Battery connector
電池插座
Anschluss für die Batterie
Connecteur de pile
Conector de batería
バッテリーコネクタ
Разъем для батареи
電池接头

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

JP2		Open (enabled)	Short (disabled)
Pin	Signal Name		
1	U30B_pin10	1	2
2	GND		

- J2 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		4	3	2	1
Pin	Signal Name				
1	GND				
2	+12V				
3	SPEED_SENSE				
4	PWM_CTRL				

- J5 Debug header \ Debug 插座 \ Debug-Anschluss
Connecteur Debug \ Conexión Debug \ デバッグヘッダ
Отладочный разъем \ Debug 接头

Pin	Signal Name	2	4	6	8	10
1	LPC_24M					
2	LAD1					
3	SIORST-					
4	LAD0					
5	LFRAME-					
6	+3.3V					
7	LAD3					
8	GND					
9	LAD2					
10	NULL					

- J7 COM port \ COM 插座
COM-Ausgang \ Port COM
Puerto COM \ COM ヘッダ
COM-порт \ COM 接头

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

2	4	6	8	10
●	●	●	●	●
■	●	●	●	●
1	3	5	7	9

- J9 VGA connector \ VGA 插座 \ VGA-Anschluss
Connecteur VGA Conector del VGA
VGA コネクター \ VGA разъем \ VGA 接头

CN6					
Pin	Signal Name	Pin	Signal Name	Pin	Signal Name
1	GND	2	GND	3	SDVO_CLK_D
4	GND	5	SDVO_DATA_D	6	GND
7	GND	8	GND	9	CRT_VSYNC_R
10	GND	11	CRT_HSYNC_R	12	GND
13	GND	14	GND	15	BOUT-O
16	VGA_PWR	17	GOUT-O	18	VGA_PWR
19	ROUT-O	20	VGA_PWR		

- J3 Audio connector
音效接頭
Audio-Anschluss
Connecteur audio
Conector del Audio
オーディオコネクター
Аудио разъем
音效接头

AUDIO1	
Pin	Signal Name
1	PULL AGND
2	LINE-R
3	NA
4	LINE-L
5	PULL AGND
6	FRONT_L
7	NULL
8	FRONT_SENSE
9	PULL AGND
10	FRONT_R
11	FR_AUDIO-JD
12	MIC1_R
13	AGND
14	MIC1_L

14	●	●	13
12	●	●	11
10	●	●	9
8	●		7
6	●	●	5
4	●	●	3
2	●	■	1

- J4 USB connector
USB 插座
USB-Anschluss
Connecteur USB
Conector del USB
USB コネクター
USB разъем
USB 接头

CN12	
Pin	Signal Name
1	GND
2	USB1P_C
3	USB1N_C
4	USBPW01 (+5V)

1	■	
2	●	
3	●	
4	●	

- J6 COM port \ COM 插座 \ COM-Ausgang \ Port COM
Puerto COM \ COM ヘッダ \ COM-порт \ COM 接头

Pin	Signal Name		
	RS232	RS422	RS485
1	DCD	TXD-	DATA-
2	RX	TXD+	DATA+
3	TX	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

2	●	4	●	6	●	8	●	10	●
1	■	3	●	5	●	7	●	9	●

- J8 COM 1 & COM 2 power switch \ COM 1 & COM 2 電源開關
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 电源开关

COM PORT Pin 9 "Ring Indicator" (RI) configuration:

Configure COM 1 with the first jumper:

- Short Pin 1-2: Pin 9 = RI (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 = RI (default)
- Short Pin 6-8: Pin 9 = +5V
- Short Pin 8-10: Pin 9 = +12V

JP1			
Pin	Signal Name	Pin	Signal Name
1	-XRI1	2	COM_-XRI1
3	-XRI2	4	COM_-XRI2
5	+5V	6	+5V
7	COM1_PWR	8	COM2_PWR
9	+12V	10	+12V

2	4	6	8	10
●	●	●	●	●
■	●	●	●	●
1	3	5	7	9

- J10 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	RTCST-
2	+5V
3	GND
4	PWRSW-

2	●	4	●
1	■	3	●