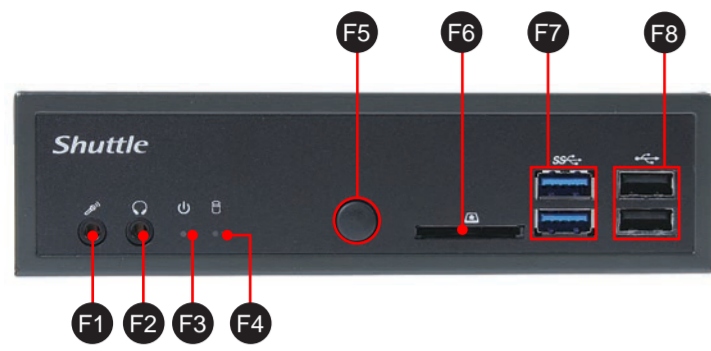
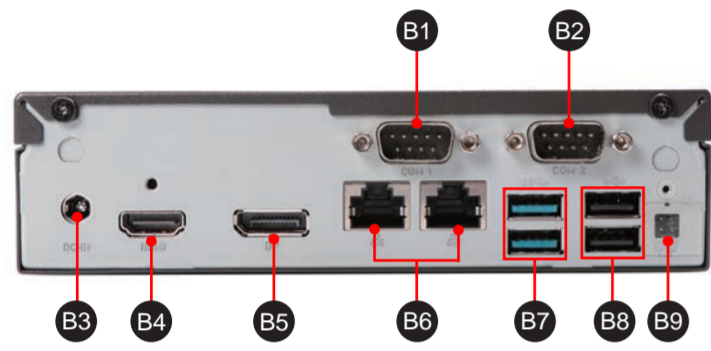


Front Panel



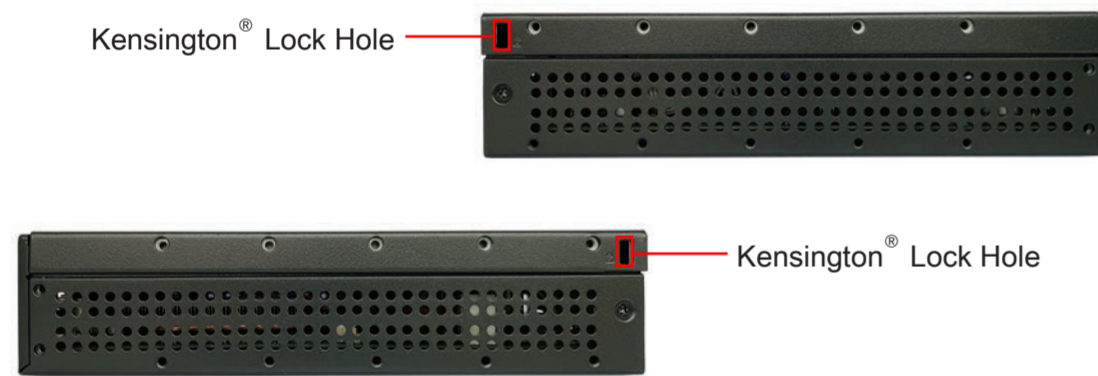
- F1. MIC-in
- F2. Headphones
- F3. Power LED
- F4. HDD LED
- F5. Power button
- F6. SD card reader
- F7. USB 3.1 Gen 1 ports
- F8. USB 2.0 ports

Back Panel

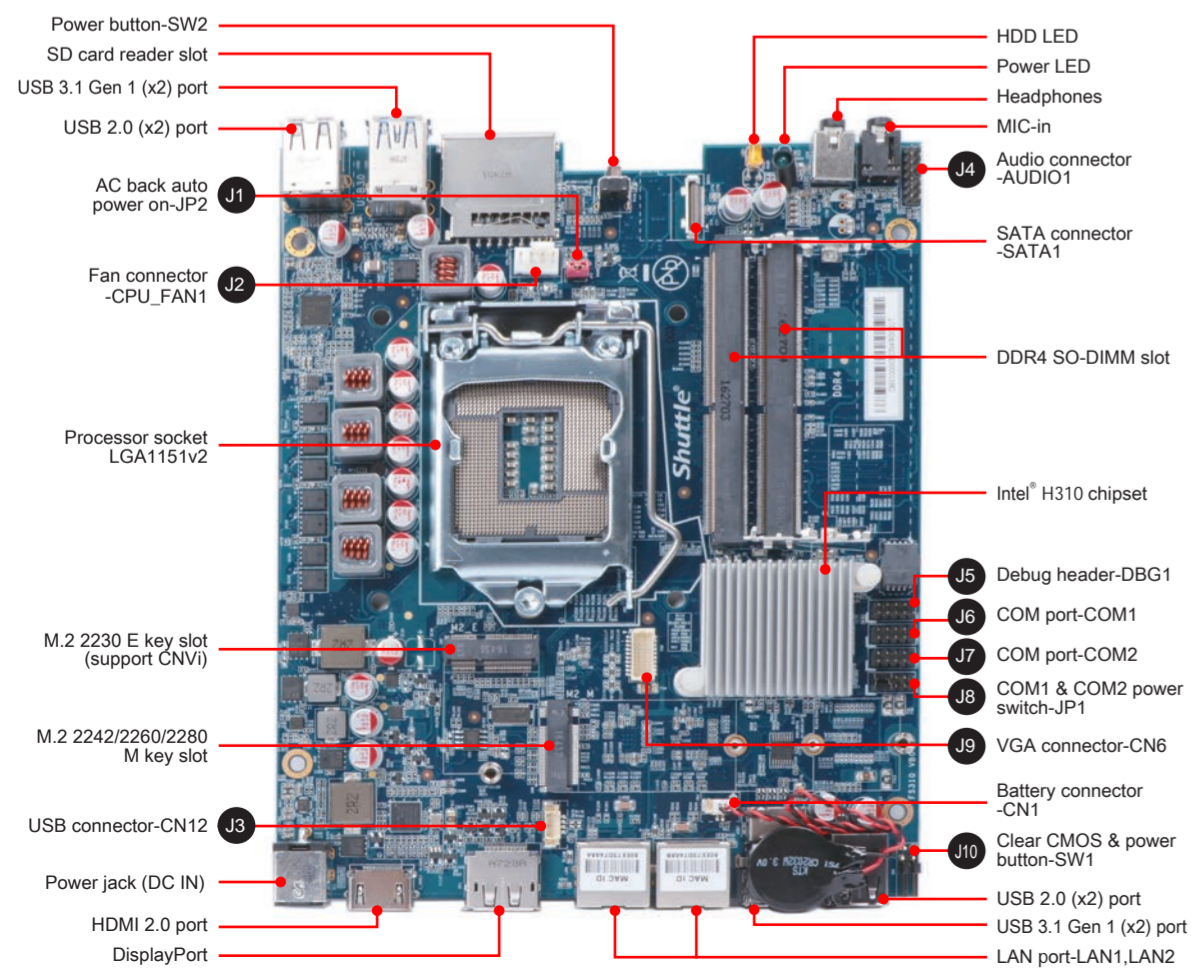


- B1. COM 1 port (RS232/RS422/RS485)
- B2. COM 2 port (RS232 only)
- B3. Power jack (DC IN)
- B4. HDMI 2.0 port
- B5. DisplayPort
- B6. LAN ports
- B7. USB 3.1 Gen 1 ports
- B8. USB 2.0 ports
- B9. Clear CMOS & power button

Left / Right Panel



Motherboard Illustration

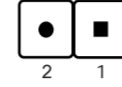


Jumper Settings

J1 AC back auto power on

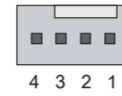
DEFAULT =>Disable, short 1-2

JP2	
Pin	Signal Name
1	U30B_pin10
2	GND



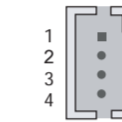
J2 Fan connector

CPU_FAN1	
Pin	Signal Name
1	GND
2	+12V
3	SPEED_SENSE
4	PWM_CTRL



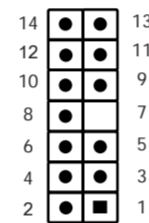
J3 USB connector

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



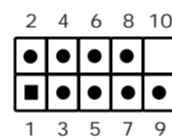
J4 Audio connector

AUDIO1			
Pin	Signal Name	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

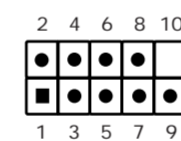


J5 Debug header

DBG1			
Pin	Signal Name	Pin	Signal Name
1	LPC_24M	2	LAD1
3	SIORST-	4	LAD0
5	LFRAME-	6	+3.3V
7	LAD3	8	GND
9	LAD2	10	NULL

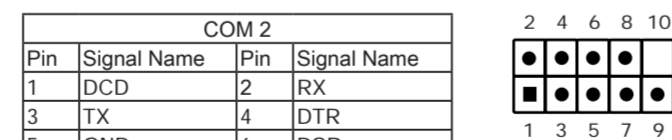


J6 COM port



COM 1							
Pin	Signal Name			Pin	Signal Name		
	RS232	RS422	RS485		RS232	RS422	RS485
1	DCD	TXD-	Data-	2	RX	TXD+	Data+
3	TX	RXD-		4	DTR	RXD+	
5	GND	GND	GND	6	DSR		
7	RTS			8	CTS		
9	RI(NA)			10	NA		

J7 COM port



Safety Information

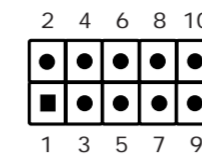
Read the following precautions before setting up a Shuttle XPC.

CAUTION
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.

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.

J8 COM 1 & COM 2 power switch

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

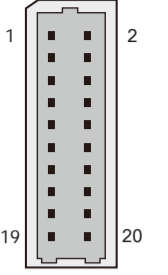
Configure COM 2 with the second jumper:

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

JP1			
COM1 (pin9)		COM2 (pin9)	
Short Pin	Function	Short Pin	Function
1-2 (Default)	RI1	3-4 (Default)	RI2
5-7	+5 V	6-8	+5 V
7-9	+12 V	8-10	+12 V

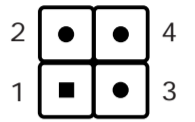
J9 VGA connector

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		



J10 Clear CMOS & power button

SW1			
Pin	Signal Name	Pin	Signal Name
1	RTCST-	2	+5V
3	GND	4	PWRSW-



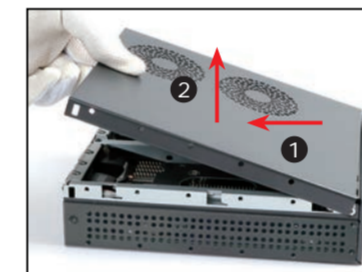
A. Begin Installation

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

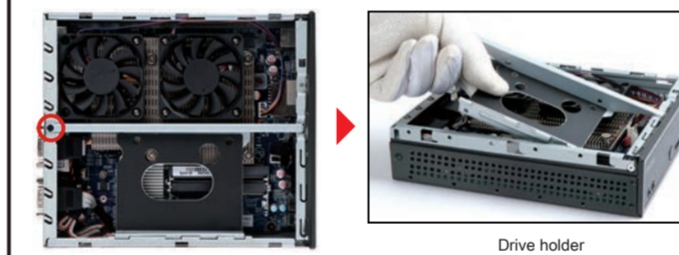
1. Unscrew the two screws of the chassis cover.



2. Slide the cover backwards and upwards.

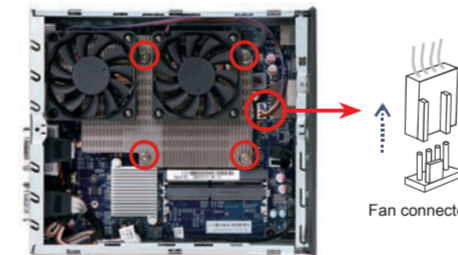


3. Unfasten the rack mount screw and remove the drive holder.



B. CPU and ICE Module Installation

1. Unfasten the four ICE module attachment screws and unplug the fan connector.

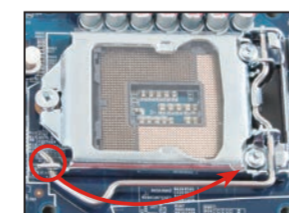


2. Remove the ICE module from the chassis and put it aside.

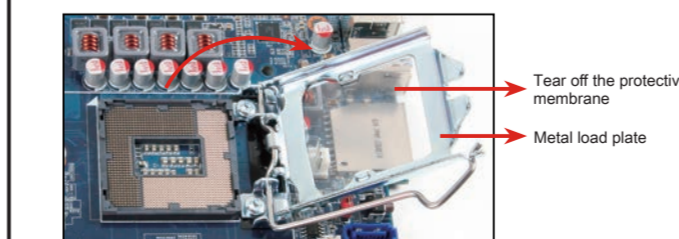
This 1151-pin socket is easily damaged and pins bend quickly. Always use extreme care when installing a CPU and limit the number of times that you remove or change it. Before installing the CPU, make sure to turn off the computer and unplug the power cord from the power outlet to prevent damage of the CPU.

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

3. First unlock and raise the socket lever.

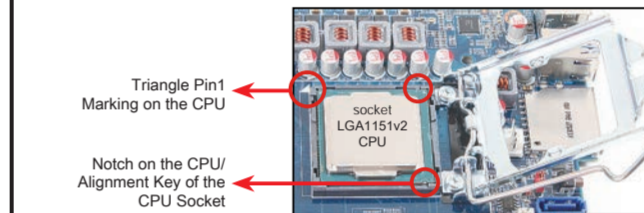


4. Tear off the protective membrane from the metal load plate. Lift the metal load plate from the CPU socket.



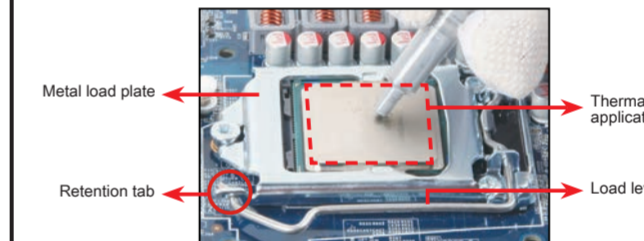
DO NOT touch socket contacts. To protect the CPU socket, always replace the protective socket cover when the CPU is not installed.

5. 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 and damage of the CPU!

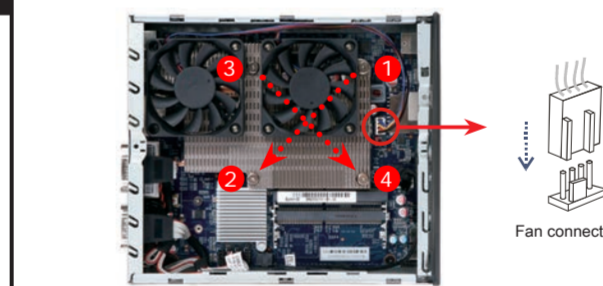
6. Close the metal load plate, lower the CPU socket lever and lock in place.



Please do not apply excess amount of thermal paste.

8. Screw the ICE module to the mainboard. Note to press down on the opposite diagonal corner while tightening each screw.

9. Connect the fan connector.

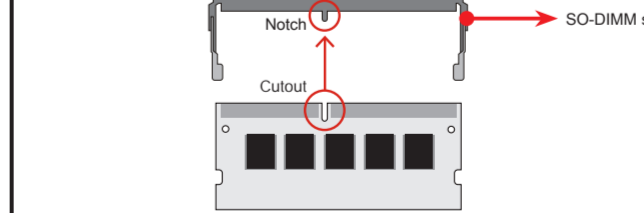


C. Memory Module Installation

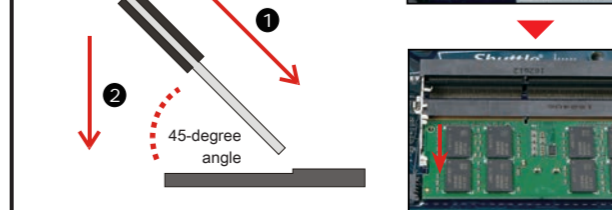
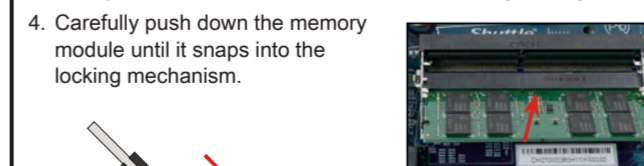
This mainboard does only support 1.2 V DDR4 SO-DIMM memory modules.

1. Locate the SO-DIMM slot on the mainboard.

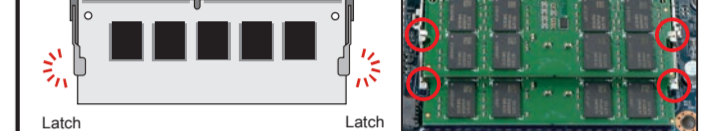
2. Align the notch of the memory module with the one of the relevant memory slot.



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



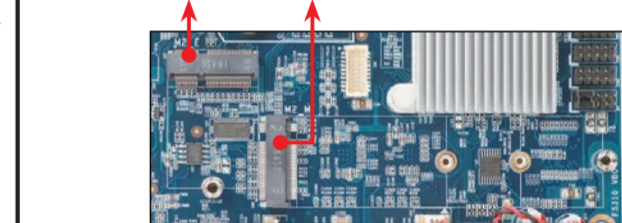
5. Repeat the above steps to install an additional memory module, if required.



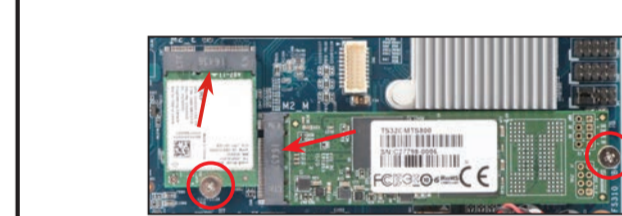
D. Component Installation

1. Please proceed as shown in the illustration, and locate the M.2 key slot on the mainboard.

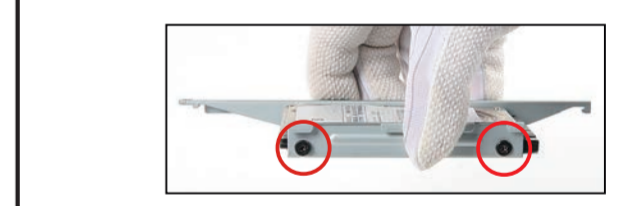
M.2 2230 E key slot M.2 2242/2260/2280 M key slot



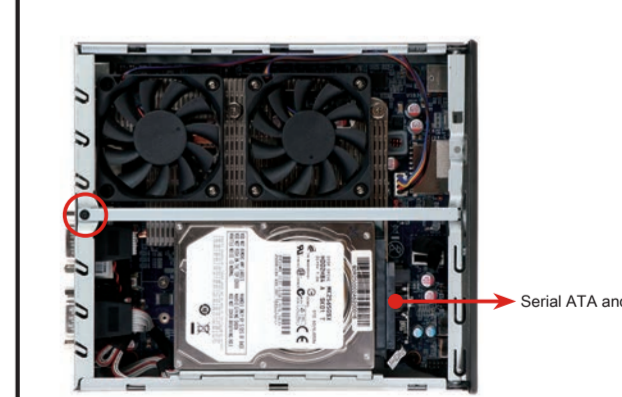
2. Install the M.2 device into the M.2 slot and secure with the screw.



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



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



E. Complete

1. Replace the cover and refasten the screws.



2. Complete.

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