SZ68R5 Quick Guide 【 English 】
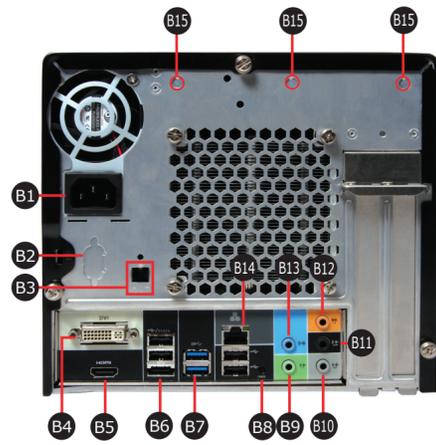
Front Panel

F1. 5.25" Bay
F2. 3.5" Bay
F3. Eject Button
F4. Open Door
F5. Power Switch & Power LED
F6. HDD LED
F7. USB3.0 Ports
F8. USB2.0 Port
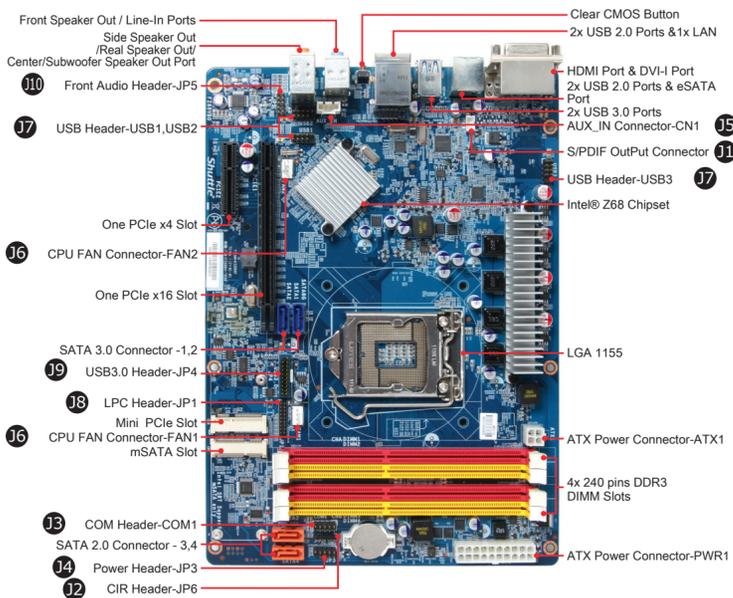F9. Mic In
F10. Headphone
F11. USB2.0 Port & Fast Charger

Back Panel

B1. AC Power Socket
B2. Serial Port (Optional)
B3. S/PDIF Out Port
B4. DVI-I Port
B5. HDMI Port
B6. eSATA & USB2.0 Ports
B7. USB3.0 Ports
B8. Clear CMOS Button
B9. Front Speaker Out (L/R) Port
B10. Side Speaker Out (L/R) Port
B11. Real Speaker Out (L/R) Port
B12. Center/Subwoofer Speaker Out Port
B13. Line-In Port
B14. LAN & USB2.0 Ports
B15. Wireless LAN Perforation (Optional)

⚠ DVI-I & HDMI Ports cannot be used, if the PCIe x16 graphics card is installed.

Motherboard Illustration

Front Speaker Out / Line-In Ports
Side Speaker Out /Real Speaker Out/ Center/Subwoofer Speaker Out Port
Front Audio Header-JP5
USB Header-USB1,USB2
One PCIe x4 Slot
CPU FAN Connector-FAN2
One PCIe x16 Slot
SATA 3.0 Connector -1,2
USB3.0 Header-JP4
LPC Header-JP1
Mini PCIe Slot
CPU FAN Connector-FAN1
mSATA Slot
COM Header-COM1
SATA 2.0 Connector - 3,4
Power Header-JP3
CIR Header-JP6

Clear CMOS Button
2x USB 2.0 Ports &1x LAN
HDMI Port & DVI-I Port
2x USB 2.0 Ports & eSATA Port
2x USB 3.0 Ports
AUX_IN Connector-CN1
S/PDIF OutPut Connector
USB Header-USB3
Intel® Z68 Chipset
LGA 1155
ATX Power Connector-ATX1
4x 240 pins DDR3 DIMM Slots
ATX Power Connector-PWR1

Jumper Settings

J1 S/PDIF OutPut Connector (JP2)

1=Ground
2=VCC
3=SPDIFO

J2 CIR Header (JP6)

1=5V
2=NA
3=Ground
4=GPIO1
5=GPIO2

J3 COM Header (COM1)

1=DCD	2=RXD
3=TXD	4=DTR
5=Ground	6=DSR
7=RTS	8=CTS
9=Ring	10=NA

J4 Power Header (JP3)

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

J5 AUX IN Connector (CN1)

1=AUX-IN – Left
2=Ground
3=Ground
4=AUX-IN – Right

J6 CPU Fan Connectors

SPEED_SENSE   Ground
PWM_CTRL +12V
FAN1/ FAN2

J7 USB Header (USB1,USB2,USB3)

1=5V_USB	2=5V_USB
3=USB A-	4=USB B-
5=USB A+	6=USB B+
7=GND	8=GND
9=NA	10=NULL

J8 LPC Header (JP1)

1=+12V	2=5V	3=5VSB	4=SERIRQ
5=CLK_48M	6=CLK_33M	7=SIO_RST	8=LFRAME
9=LAD3	10=LAD2	11=-12V	12=3VSB
13=Ring	14=LDRQ0	15=SIO_PME	16=LAD1
17=LAD0	18=+3.3V	19=GND	20=NA

J9 USB 3.0 Header (JP4)

1=5VCC	2=A_RX_N	3=A_RX_P	4=Ground
5=A_TX_N	6=A_TX_P	7=Ground	8=A_Data_N
9=A_Data_P	10=OC	11=B_Data_P	12=B_Data_N
13=Ground	14=B_TX_P	15=B_TX_N	16=Ground
17=B_RX_P	18=B_RX_N	19=5VCC	20=NA

J10 Front Audio Header (JP5)

1=MIC_L	2=GND
3=MIC_R	4=Front_Detect
5=LINE_R	6=Mic_detect
7=sense	8=NA
9=LINE_L	10=Line_Detect

➢ 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.
Disposal of used batteries according to the manufacturer's instructions.

Laser compliance statement
The optical disc drive in this PC is a laser product.
The drive's classification label is located on the drive.

CLASS 1 LASER PRODUCT
CAUTION: INVISIBLE LASER RADIATION WHEN OPEN.
           AVOID EXPOSURE TO BEAM.

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.

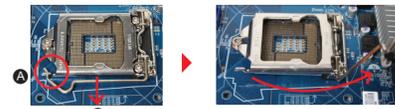3. Unfasten the rack mount screws and remove the rack.
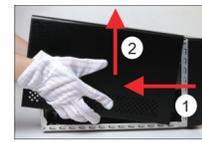
B. CPU and ICE Installation

1. Unfasten the ICE fan thumbscrews on the back of the chassis.
2. Unfasten the four ICE module attachment screws and unplug the fan connector.

Fan Connector

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

⚠ This 1155 pin socket is fragile and easily damaged. Always use extreme care when installing a CPU and limit the number of times that 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 to the CPU.

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

4. First unlock. Press Ⓐ with your thumb, then move it to Ⓑ until it is released from the retention tab and raise the socket lever.


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

Metal load plate
Remove the protective membrane

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

6. Orientate the CPU and socket, you may align the CPU notches with the socket alignment keys. Make sure the CPU is perfectly horizontal, insert the CPU into the socket.

Triangle Pin1 Marking on the CPU
Socket 1155 CPU
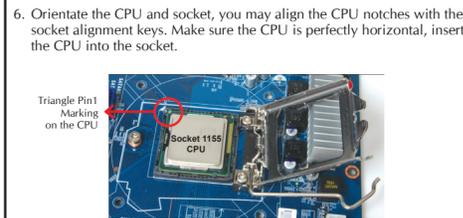
⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

7. Close the metal load plate, lower the CPU socket lever and lock in place.
8. Spread thermal paste evenly on the CPU surface.

Thermal Paste application area
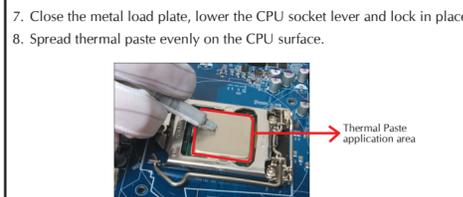
⚠ Please do not apply excess amount of thermal paste.

9. Tear off the protective membrane from the bottom of ICE module. Remove the protective socket mylar from the CPU socket.
10. Screw the ICE module to the mainboard. Note to press down on the opposite diagonal corner while tightening each screw.
11. Connect the fan connector.

Fan Connector

12. Fasten the Smart Fan to the chassis with the 4 thumbscrews.
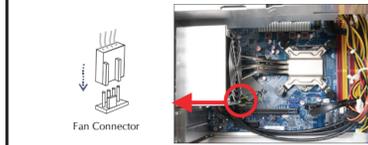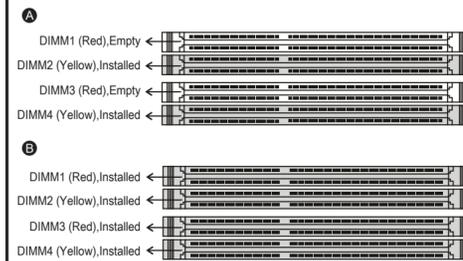

C. Memory module Installation

➢ 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 are 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 memory, switch the direction.

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

Ⓐ
DIMM1 (Red),Empty
DIMM2 (Yellow),Installed
DIMM3 (Red),Empty
DIMM4 (Yellow),Installed

Ⓑ
DIMM1 (Red),Installed
DIMM2 (Yellow),Installed
DIMM3 (Red),Installed
DIMM4 (Yellow),Installed

➢ Installing a memory module
DDR3 DIMMs are not compatible to each other or DDR DIMMs.
Be sure to install DDR3 DIMMs on this motherboard. 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 DIMM slot notch. Slide the memory module into the DIMM slot.

⚠ A DDR3 memory module has a cutout, so it can only fit in one direction.

Cutout Notch DDR3 240-pin 1.5V
Latch Latch
48*2 = 96 pin 72*2 = 144 pin

3. Check that the latches are closed, and the memory module is firmly installed.

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

D. Mini PCIe card Installation

1. Install the Mini PCIe card into the Mini PCIe slot / mSATA Slot and affix it with screws.

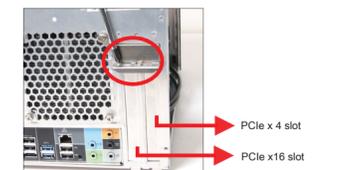## E. Peripheral Installation

1. Loosen the purse lock and separate the Serial ATA and power cables.
2. Place the HDD and optical drive in the rack and secure with screws from the side.

Serial ATA Optical Drive
Serial ATA HDD

3. Place the rack in the chassis and refasten the rack.

Connect the Serial ATA Cable to motherboard.

4. Connect the Serial ATA and power cables to the HDD.

Serial ATA Power Cable
Serial ATA Cable

5. Connect the Serial ATA and power cables to the optical drive.

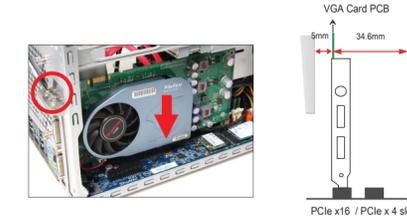Serial ATA Power Cable
Serial ATA Cable
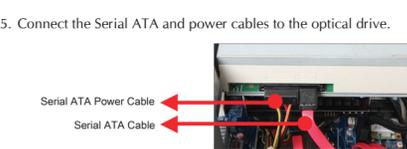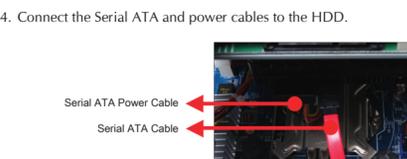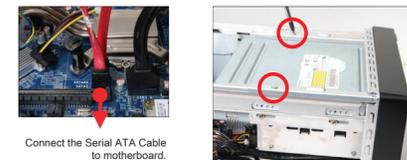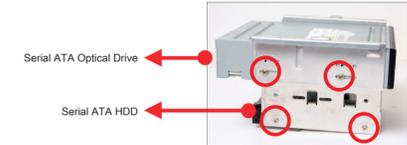
F. Accessories Installation

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

⚠ The maximum size acceptable for display cards is 267mm x 98mm x 34.6mm.

PCIe x 4 slot
PCIe x16 slot

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

VGA Card PCB
5mm 34.6mm
Chassis Cover
PCIe x16 / PCIe x 4 slots

G. Complete

1. Replace the cover and refasten the thumbscrews.

2. Complete.

⚠ Please press "Del" key while booting to enter BIOS and load the optimised BIOS settings.

ℚ The product's colour and specification will depend on the actual shipping product.

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