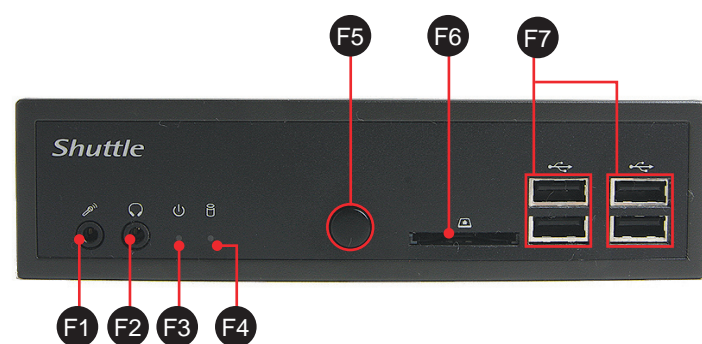


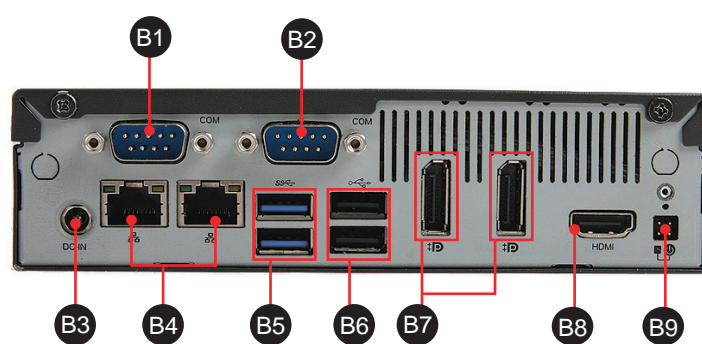
DS87 Series Quick Guide 【English】

Front Panel



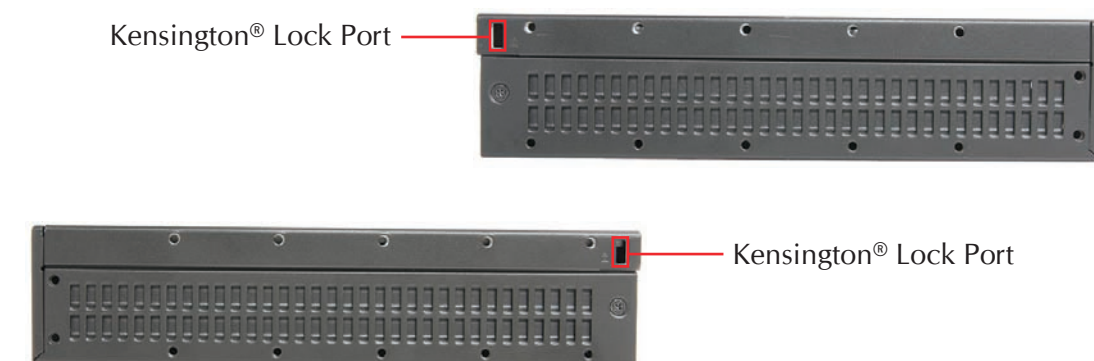
- F1. Mic-In
- F2. Headphone
- F3. Power LED
- F4. HDD LED
- F5. Power Button
- F6. Card reader
- F7. USB2.0 Ports

Back Panel

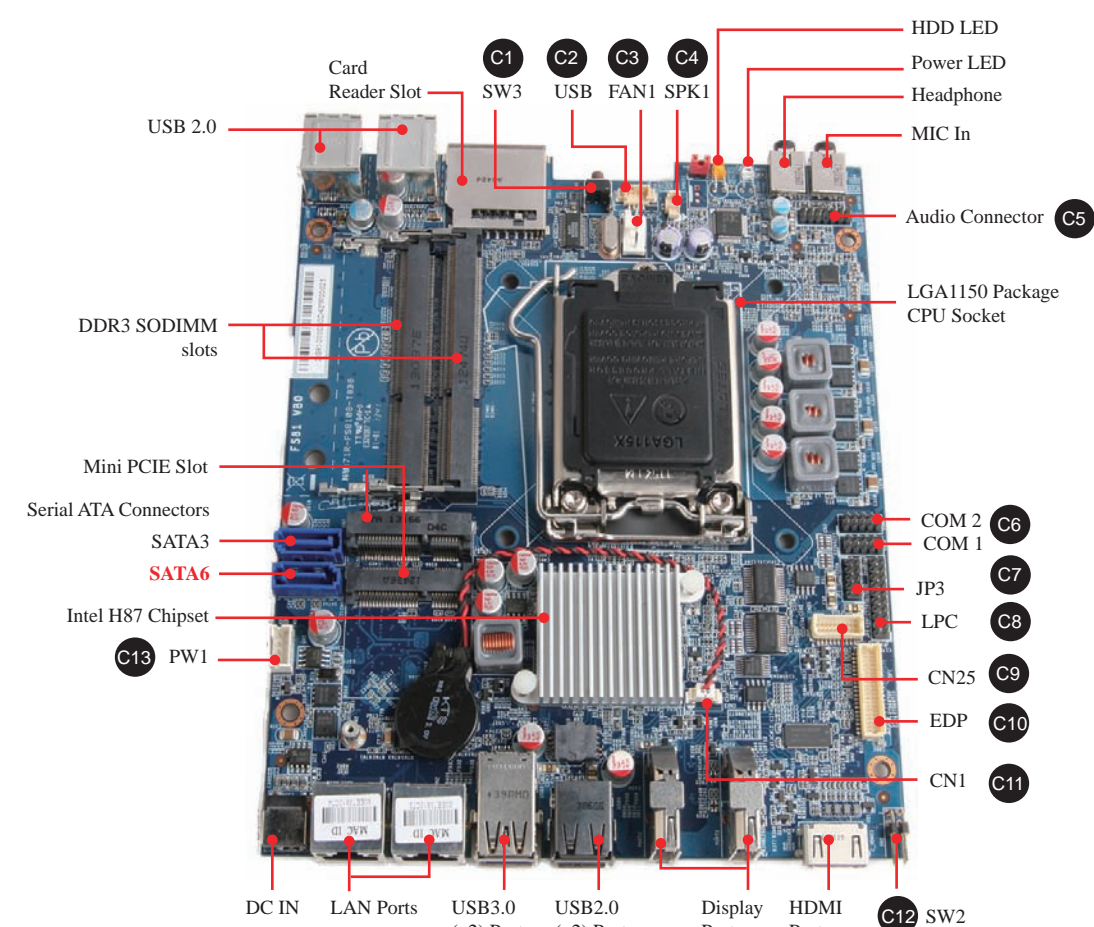


- B1.COM1 Port (RS232/RS422/RS485)
- B2.COM2 Port (RS232 only)
- B3. Power Jack (DC-in)
- B4. LAN Ports
- B5. USB3.0 Ports
- B6. USB2.0 Ports
- B7. DisplayPort
- B8. HDMI Port
- B9. Clear CMOS&POWER BUTTON

Left / Right Panel



Motherboard Illustration



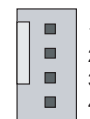
Jumper Settings

C1 Power Button (SW3)



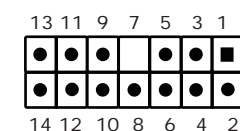
C3 Fan Connector

- Pin Assignments (FAN1):
- 1=GND
 - 2=+12V
 - 3=SPEED_SENSE
 - 4=PWM_CTRL



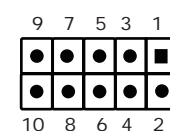
C5 Audio Connector

- Pin Assignments (AUDIO2):
- 1=PULL AGND
 - 2=LINE-R
 - 3=NC
 - 4=LINE-L
 - 5=PULL AGND
 - 6=FRONT_L
 - 7=NC
 - 8=FRONT_SENSE
 - 9=PULL AGND
 - 10=FRONT_R
 - 11=BK_AUDIO-JD
 - 12=MIC1_R
 - 13=AGND
 - 14=MIC1_L



C6 COM PORT

- Pin Assignments (COM1&COM2):
- 1=DCD
 - 2=RX
 - 3=TX
 - 4=DTR
 - 5=GND
 - 6=DSR
 - 7=RTS
 - 8=CTS
 - 9=RI
 - 10=NC

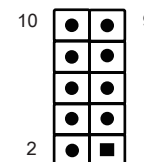


C7 Support RS232 Back panel Independent External Power 12V / 5V

(DEFAULT=SHORT 1-2,3-4)
IF JUMP1 Connector Pin 5 and Pin 7 = COM1 is +5V
IF JUMP2 Connector Pin 6 and Pin 8 = COM2 is +5V
IF JUMP1 Connector Pin 7 and Pin 9 = COM1 is +12V
IF JUMP2 Connector Pin 8 and Pin 10 = COM2 is +12V

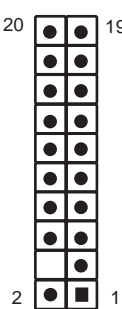
Pin Assignments (JP3):

- 1=-XRI1
- 2=COM_-XRI1
- 3=-XRI2
- 4=COM_-XRI2
- 5=+5V
- 6=+5V
- 7=COM1_PWR
- 8=COM2_PWR
- 9=+12V
- 10=+12V



C8 LPC connector

- Pin Assignments (LPC1):
- 1=CLK-33M
 - 2=GND
 - 3=LFRAME
 - 4=NC
 - 5=SIORST#
 - 6=-XRI3
 - 7=L_AD3
 - 8=L_AD2
 - 9=+3.3V
 - 10=L_AD1
 - 11=L_AD0
 - 12=GND
 - 13=LPC_48M
 - 14=PCH_PME-
 - 15=+3.3VS
 - 16=SERIRQ
 - 17=GND
 - 18=+3.3V
 - 19=+3.3V
 - 20=SUS_CLK



Safety Information

Read the following precautions before setting up a Shuttle XPC.

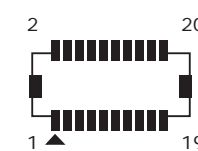
CAUTION

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.

C9 VGA Connector

Pin Assignments (CN25):

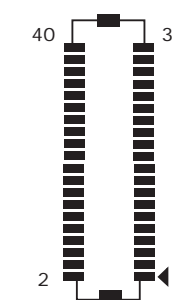
- 1=GND
- 2=GND
- 3=SDVO_CLK_D
- 4=GND
- 5=SDVO_DATE_D
- 6=GND
- 7=GND
- 8=GND
- 9=CRT_VSYNC_R
- 10=GND
- 11=CRT_HSYNC_R
- 12=GND
- 13=GND
- 14=GND
- 15=BOUT-O
- 16=VGA_PWR
- 17=GOUT-O
- 18=VGA_PWR
- 19=ROUT-O
- 20=VGA_PWR



C10 EDP Connector V1.0

Pin Assignments:

- 1=ANEL_VDD
- 2=CAD_56B
- 3=ANEL_VDD
- 4=HPD_56B_C
- 5=ANEL_VDD
- 6=NC
- 7=ANEL_VDD
- 8=NC
- 9=ANEL_VDD
- 10=NC
- 11=GND
- 12=GND
- 13=EDP_BKLTCTL
- 14=AUX-_56B_C
- 15=EDP_BKLTEN
- 16=AUX+_56B_C
- 17=GND
- 18=GND
- 19=NC
- 20=D3-_56B_C
- 21=NC
- 22=D3+_56B_C
- 23=GND
- 24=GND
- 25=INV_PWR_SRC
- 26=D2-_56B_C
- 27=INV_PWR_SRC
- 28=D2+_56B_C
- 29=INV_PWR_SRC
- 30=GND
- 31=INV_PWR_SRC
- 32=D1-56B_C
- 33=INV_PWR_SRC
- 34=D1+56B_C
- 35=GND
- 36=GND
- 37=NC
- 38=D0-_56B_C
- 39=NC
- 40=D0+_56B_C



C11 Battery connector

Pin Assignments (CN1):

- 1=V_BAT
- 2=GND



C12 Clear CMOS&POWER BUTTON

Pin Assignments (SW2):

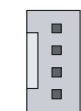
- 1=RTCRST-
- 2=+5V
- 3=GND
- 4=PWRSW-



C13 SATA POWER connector

Pin Assignments (PW1):

- 1=GND
- 2=GND
- 3=+5V
- 4=+5V



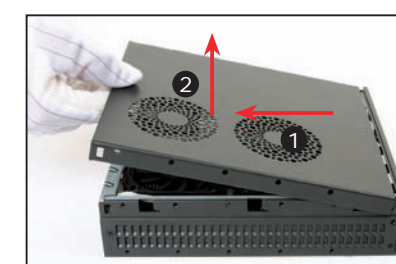
A. Begin Installation

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

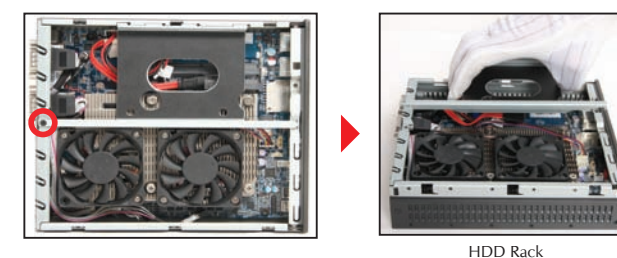
1. Unscrew the two screws of the chassis cover.



2. Slide the cover backwards and upwards.

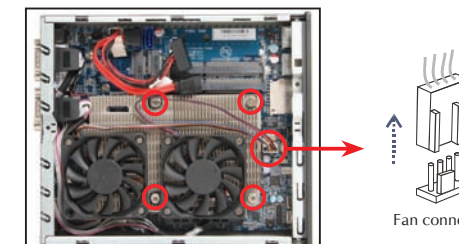


3. Unfasten the rack mount screw and remove the rack.



B. CPU and ICE Module Installation

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

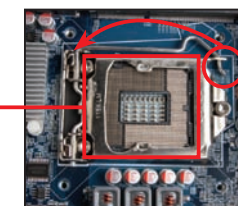


2. Remove the ICE module from the chassis and put it aside.

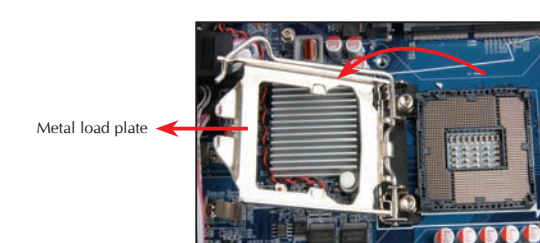
Please note this 1150 pin socket bends easily. Always apply extreme care and little force when installing a CPU and limit the number of times you remove or exchange it. Before installation, make sure to turn off the computer and unplug the power cord from the mains to avoid damage.

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

3. Tear off the protective membrane first, then unlock and raise the socket lever.

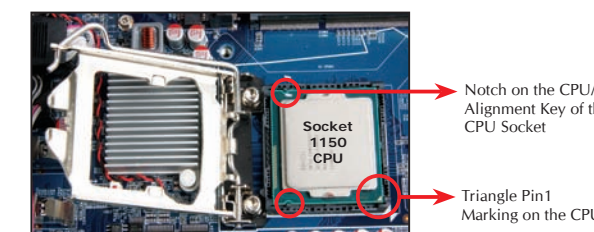


4. Lift the metal load plate on the CPU socket.



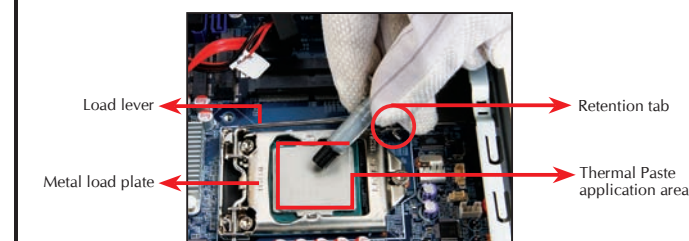
DO NOT touch socket contacts. To protect the CPU socket, always replace the protective socket cover when the CPU is not installed.

5. Orientate the CPU and socket and please align the CPU notches with the socket alignment keys. Make sure the CPU is perfectly horizontal, insert it into the socket.



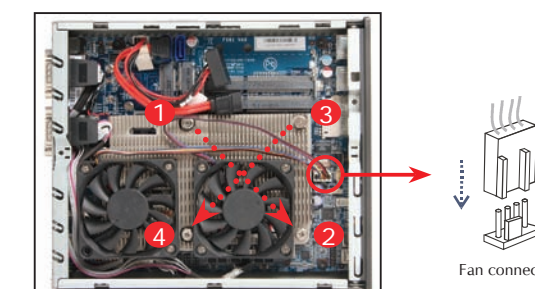
Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

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



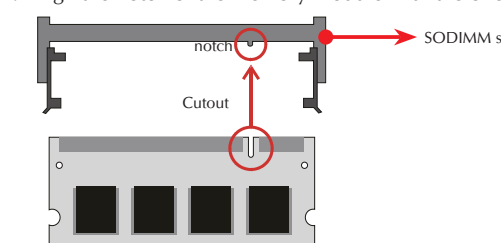
Please do not apply excess amount of thermal paste.

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.



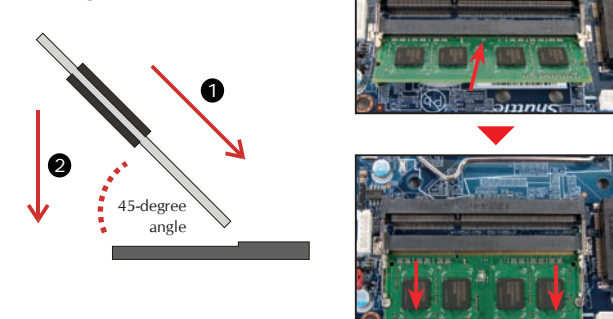
C. Memory Module Installation

1. Locate the SODIMM slot on the mainboard.
2. Align the notch of the memory module with the one of the memory slot.



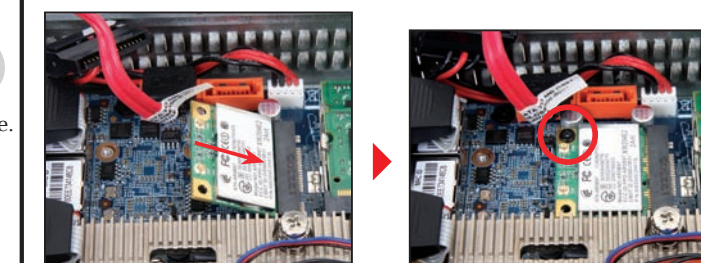
3. Gently insert the module into the slot in a 45-degree angle.

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

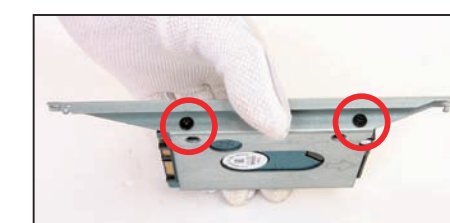


D. Component Installation

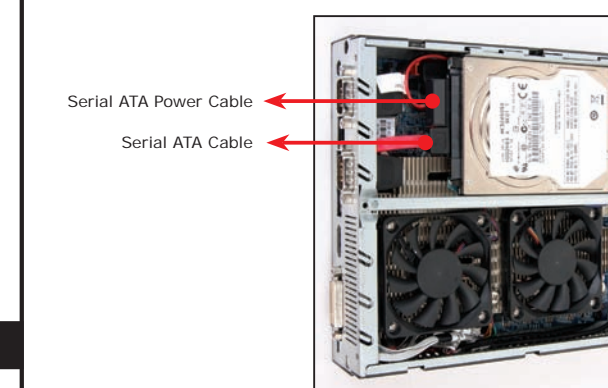
1. Install the Mini PCIE card into the Mini PCIE slot and secure with screw.



2. Place the HDD in the rack and secure with the four screws from the side.



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



4. Slide the rack in the chassis and refasten the screw.



E. Complete

1. Replace the cover and refasten the screws.



2. Complete.

Please load the optimized BIOS settings.