

3 Align and install the riser assembly

3 Align and install the GPU card to

Then secure the two screws to the

the riser assembly.

front of the GPU card.

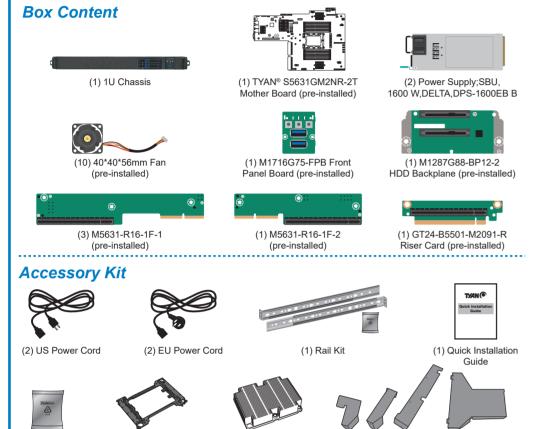
to the chassis and secure with the

### **General Information**

#### Read Me First

- 1. The Barebone User's Manual is available for download from our Web site at <a href="http://www.tyan.com">http://www.tyan.com</a>. Make sure to read all precautions and instructions before you start installing the server system.
- 2. Refer all servicing to qualified personnel to avoid the risk of damage to the server system.
- 3. Exercise normal ESD (Electrostatic Discharge) procedures during system integration. TYAN/MiTAC recommends wearing gloves and an anti-static wrist strap to avoid possible damage to the equipment
- 4. Current processor socket design places the pins on the motherboard instead of the processor itself. Exercise caution when

installing the processors as the manufacturer's warranty does not cover damage inflicted upon the motherboard, including damage to the CPU sockets.



#### Non-Fabric CPU Carrier **Required Hardware Components**

**Motherboard Placement** 

(1) CPU Clip for Narrow

#### Minimum Hardware Requirements

(3) Screw Kit

To avoid integration difficulties and possible board damage, your system must meet the following minimum requirements:

(1) CPU Heatsink

 Processor: Intel® Xeon® Scalable Processor Family · Memory: DDR-4 up to 2666 MHz R-DIMM/LR-DIMM

Hard Disk Drives: 2.5" SATA/SAS HDD

• Rack Mount Kit: Standard 19" equipment rack NOTE: The updated hardware requirements of the system please refer to the barebones user's manual on our website at

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#### Tools Required



**Motherboard Placement** 





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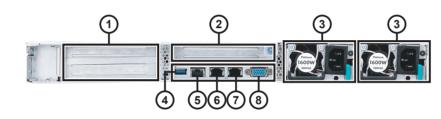
SLOTS

(4) Air Duct (1P/4P/5P/CPU MYLAR)

# 2 About the Product

# System Front View 23456 (1) (2) 2.5" Hot-Swappable HDD 6 Power/ID LED (2) HDD Status LED (7) Reset Button (3) Warning LED (8) ID Button (4) LAN1 Status LED 9 Power Button (5) LAN2 Status LED (10) (2) USB 3.0 Port

#### System Rear View



(1) GPU Card Slot

3 Hot-Swappable

5 LAN1 (dedicated for

**6** X550\_LAN2

2 PCIE Card Slot (FH-HL) 4 USB3.0

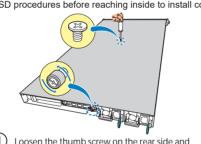
# **System Installation**

#### **Open the Chassis**

#### Preparing the Chassis

Read normal ESD (Electrostatic Discharge) procedures.

Place your TYAN® Server Chassis on a flat anti-static surface to perform the following integration procedures. Read ESD procedures before reaching inside to install components.



(1) Loosen the thumb screw on the rear side and

USB 3.0 Port (J3)

VGA Port (VGA1)

Battery Socket/Ba

RJ45 LAN Port (LAN1)

RJ45 LAN Port #1 (X550 LAN2)

RJ45 LAN Port #1 (X550 LAN1)

Clear CMOS Button (CLEAR\_BTN1)

50-PIN Power Card Edge (PSU1)

50-PIN Power Card Edge (PSU0)

4-PIN Power Connector (PWR1)

CPU0 PWOK LED (P0\_PG\_LED1)

164Pin PCIEX16 Slot (J5)

CPU0 FAN (CPU0\_FAN\_1)

COM Header (COM1)

SYS\_FAN\_6 (FAN6)

SYS FAN 5 (FAN5)

SYS FAN 4 (FAN4) SYS\_FAN\_3 (FAN3)

PCH PWROK LED (PCH\_PWOK\_LED1)

8-PIN Power Connector for GPU Card (PE\_PW4)

8-PIN Power Connector for GPU Card (PE\_PW1)

PCH SATA SGPIO Header for HD BP (SSATA\_SGPIO1)

120Pin Mini-PCIE Slot For GPU Card (J113)

120Pin Mini-PCIE Slot For GPU Card (J112)

120Pin Mini-PCIE Slot For GPU Card (J115)

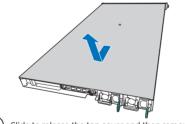
120Pin Mini-PCIE Slot For GPU Card (J114)

75Pin M.2 PCIEX4 Mini Card edge (M2\_1)

75Pin M.2 PCIEX4 Mini Card edge (M2\_2)

2-PIN Power Connector for SATA DOM (DOM\_5V\_PW2)

2-PIN Power Connector for SATA DOM (DOM\_5V\_PW1)



(7) X550\_LAN1

(8) VGA Port

4 Place a hard drive into the drive 2 Slide to release the top cover and then remove. secure the HDD.

Front Panel Header (FPIO\_1)

Small 4-PIN Power Header (J116)

USB3.0 Connector (USB3\_FPIO1)

7-PIN SATA Connector (SATA3) 7-PIN SATA Connector (SATA2)

TYAN Module Header (DBG\_HD1)

ME Recovery Mode Jumper (3PHD3)

NVIDIA GPU card Jumper (3PHD8)

Select SPI Path Jumper (J109)

PSU Alert Function Jumper (3PHD9)

NOTE: There is risk when setting the jumper by yourself

BMC COM PORT Select Jumper (3PHD6/3PHD7)

Disable LANO/LAN1 Jumper (3PHD14/3PHD15)

IPMB Pin Header (IPMB\_HD1)

Intel VROC Key Header (J2)

CATERR LED (CAT\_LED1)

CPU Error LED (ERR\_LED1)

JUMPER

8-PIN Power Connector for GPU Card (PE\_PW5)

8-PIN Power Connector for GPU Card (PE\_PW2)

BIOS Socket/BIOS (BIOS\_SOCKET1/BIOS\_SPI1) 7-PIN SATA Connector for SATA DOM (SSATA5\_DOM2)

Vertical Type-A USB3.0 Connector (TYPEA\_USB1)

7-PIN SATA Connector for SATA DOM (SSATA4\_DOM1)

SYS FAN 2 (FAN2)

SYS FAN 1 (FAN1)

SYS\_FAN\_8 (FAN8)

SYS FAN 7 (FAN7)

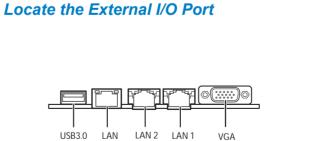
SYS\_FAN\_10 (FAN10)

BMC LED (BMC\_LED1)

SYS\_FAN\_9 (FAN9)

1 Pull the locking lever open.

# 5 I/O Ports

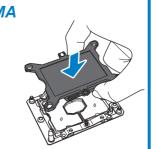


# 6 Caution

### CPU Cover for DOA/RMA

NOTE: Please save and replace the CPU Cover when returning the server board

for service.

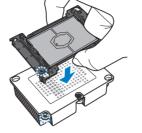


### 5 System Installation

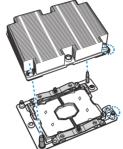
## Install the Processor



Align and install the processor on the carrier.

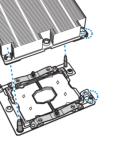


(2) Carefully flip the heatsink. Then install the carrier assembly on the bottom of the heatsink and make sure the gold arrow is located in the correct direction.



Remove the CPU cover. NOTE: Save and replace the CPU cover if the processor is removed

Install Front 2.5" Hard Disk Drives



4) Align the heatsink with the CPU socket by the guide pins and make sure the gold arrow is located in the correct direction. Then place the heatsink onto the top of the

2 Slide the HDD tray out.

**5** Reinsert the HDD tray into the

NOTE: A new heatsink comes with pre-applied thermal grease. Once the heatsink has been removed from the processor, you need to clean the processor and heatsink using an alcohol solvent. Then apply new thermal grease before reinstalling the heatsink.



secure the heatsink, use a T30 Security Torx to tighten the screws in a sequential order (1⇒2⇒3⇒4). **NOTE:** When disassembling the heatsink,

3 Unscrew the HDD tray bracket.

**6** Push the locking lever firmly to

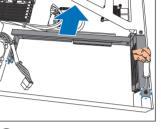
secure the tray. Repeat the same procedures to install other HDD

loosen the screws in reverse order

1 Remove the screw from the riser

Then lift to remove the riser

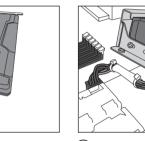
assembly from the chassis.



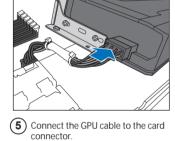
Install the Add-On Card (Optional)

Install the GPU Card (Type1, Optional)

1 Remove the two screws from the riser assembly. Then lift to remove the riser assembly from the chassis.



4 Secure the two screws to the rear of the GPU card.



2 Unscrew the two PCIE dummy

from the riser assembly.

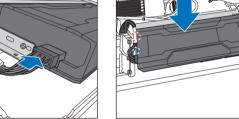
brackets and remove the brackets

2 Unscrew and remove the PCIE

Then connect the add-on card to

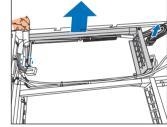
the riser connector and secure with

dummy bracket.

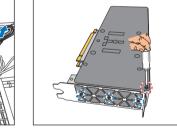


6 Align by the guide pin marked with red circle. Then install the riser

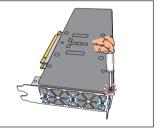
#### Install the GPU Card (Type2, Optional)



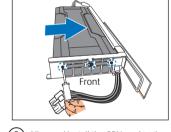
1 Unscrew the riser assembly and the mainboard connector. Then lift to remove the riser assembly from the chassis.



disconnect the GPU cable from



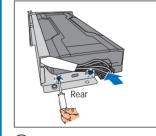
2 Remove the four screws from the GPU card bracket. Then remove the bracket and secure the screw marked with red circle



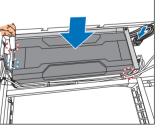
assembly to the chassis and secure

with the two screws.

**3** Align and install the GPU card to the iser assembly. Then secure the three screws to the front of the GPU card.



4) Secure the two screws to the rear of the GPU card. Then connect the GPU cable to the card connector.



**5** Align by the guide pin marked with red circle. Then install the riser assembly to the chassis and secure with the screw. Then connect the GPU cable to the mainboard connector

**NOTE**: Repeat the procedures described earlier in reverse order to replace the riser assembly.

