TYAN GC79A-B7132 Barebone Server System Installation Guide

Contents

GC79A-B7132 Quick Installation Guide

Document # D2576-100/ Revision 1.0

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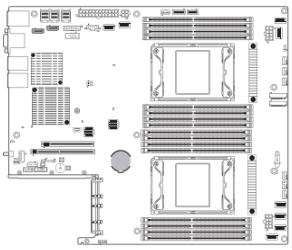
[1] General Information

Read Me First

1. The Barebone User’s Manual is available for download from our Web site at http://www.tyan.com. 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.

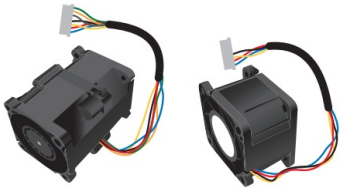
Box Content

(1) 1U chassis

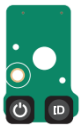


(1) TYAN® S7132 System Board (pre-installed)

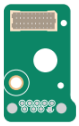
(1+1) TF-POWER SUPPLY; SBU, 1200 W, CHICONY (pre-installed)



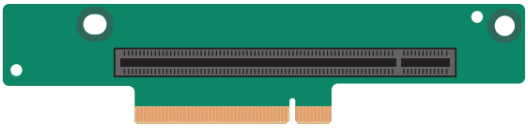
(6) 40X40X56mm Fan + (2) 40X40X28mm Fan (pre-installed)



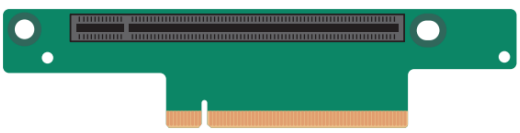
(1) M1724G68-FPB (pre-installed)



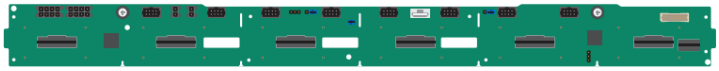
(1) M1725G68-USB (pre-installed)



(1) M7132G79-R16-1L Riser Card (pre-installed)



(1) M7132G79-L16-1F Riser Card (pre-installed)

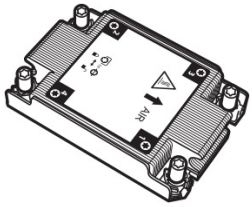


(1) M1299G68A-BPE-12-7132 HDD Backplane Board (pre-installed)

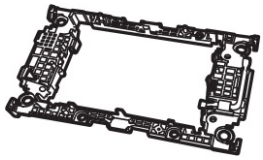
Accessories

(1) Rail Kit and Screw

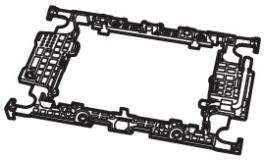
(1) M.2 Card Latch



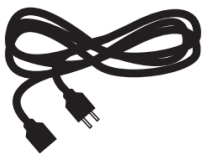
(2) CPU Heatsink



(2) MCC CPU Carrier



(2) XCC CPU Carrier



(2) US Power Cord

(2) EU Power Cord

(1) TYAN Quick Installation Guide

(1) CHINA ROHS TO DECLARE sheet

Required Hardware Components

Minimum Hardware Requirements

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

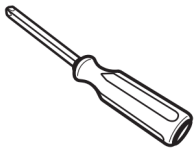
- Processor: (2) Intel® Xeon® Eagle Stream (Sapphire Rapids-SP) series processor with TDP up to 350W
- Memory Type:

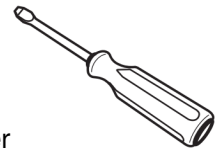
– (16+16) DIMM slots
– (L)RDDR5 up to 4800 with ECC (1.2V)
– (8) memory channels per CPU
– (16) DIMM slots per CPU channel

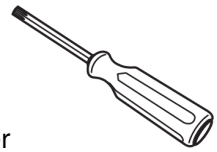
- Hard Disk Drives:
  – (12) 2.5″ NVMe hot-swap, tool-less HDD/SSD drive bays
- Rack Mount Kit (Industry 19″ rack-mountable)

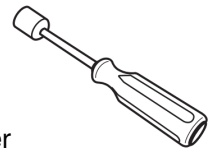
NOTE: The updated hardware requirements of the system please refer to the barebones user's manual on our website at **www.tyan.com**

Tools Required

Phillips Screwdriver 

Flat-head Screwdriver 

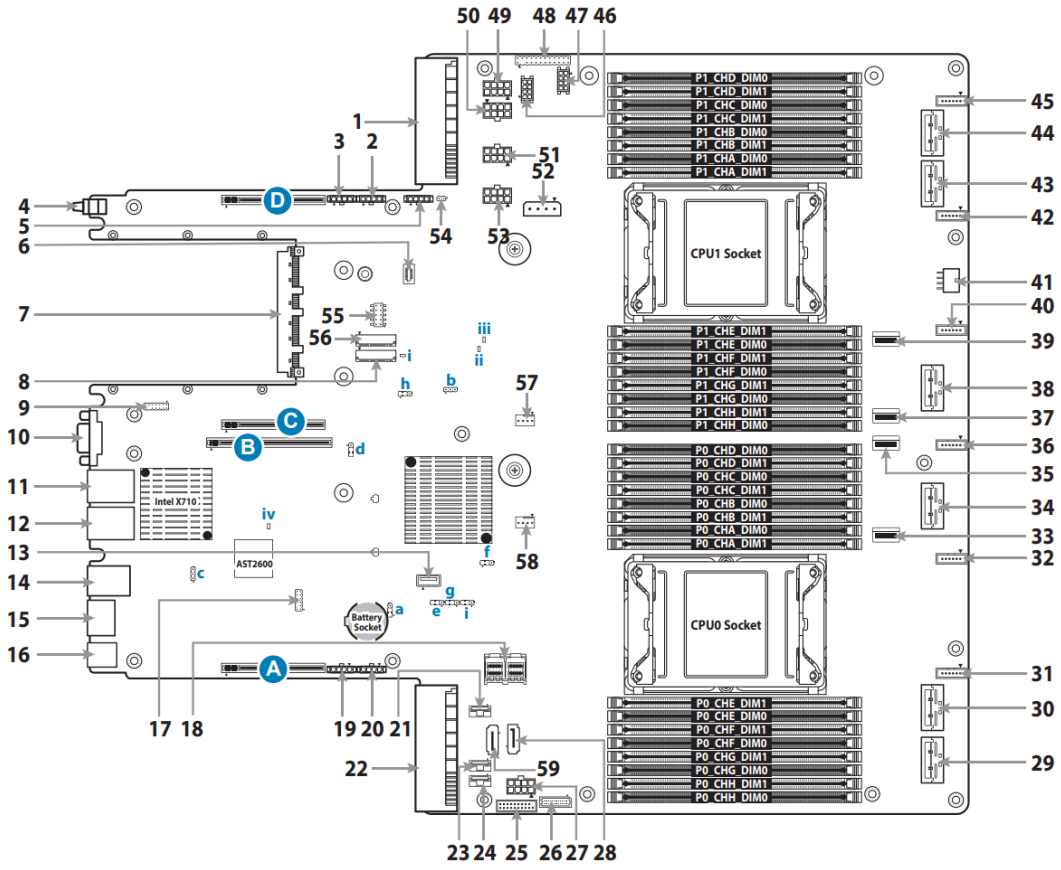
T30 Security Torx Screwdriver 

Hex Socket Screwdriver 

Anti-Static Wrist Strap 

[2] Motherboard Placement

Motherboard Placement



CONNECTORS

1 System Power Connector0 (J24)
2 4-pin Power Connector (J45)
3 4-pin Power Connector (J44)
4 ID Button (SW2)
5 4-pin Power Connector (J42)
6 SPI TPM Connector(J16)
7 OCP 3.0 (J1_OCP3)
8 M.2 Connector (CN2) PCIE ONLY
9 Front VGA Header (J37)
10 Rear VGA Header (J36)
11 RJ45 LAN Port (LAN1)
12 RJ45 LAN Port (LAN2)
13 TYPE A USB3.2 Gen1 Header (J28)
14 Dedicated to IPMI (J8)
15 BIOS COM Port (J7)
16 USB3.1 Gen1 Header (J31)
17 ESPI Port 80 Header (J38)
18 Mini SAS HD Connector (MINI_SAS_HD1)
19 4-pin Power Connector (J11)
20 4-pin Power Connector (J43)
21 HDD BP SMbus Header (J10)
22 System Power Connector1 (J25)
23 HDD BP SMbus Header (J17)
24 HDD BP SMbus Connector (J9)
25 Front USB3.0&2.0 Connector (J5)
26 Front Fan Header (FAN_HD1)
27 8-pin Power Connector (J35)
28 SATA DOM (J26)
29 MCIOx8 NVME (J52)
30 MCIOx8 NVME (J53)
31 Fan Connector (SYS_FAN_6)
32 Fan Connector (SYS_FAN_5)

33 MCIOx4 NVME (CN11)
34 MCIOx8 NVME (J60)
35 MCIOx4 NVME (CN10)
36 Fan Connector (SYS_FAN_4)
37 MCIOx4 NVME (CN6)
38 MCIOx8 NVME (J58)
39 MCIOx4 NVME (CN7)
40 Fan Connector (SYS_FAN_3)
41 8-pin Power Connector (J56)
42 Fan Connector (SYS_FAN_2)
43 MCIOx8 NVME (J62)
44 MCIOx8 NVME (J61)
45 Fan Connector (SYS_FAN_1)
46 8-pin Power Connector (J41)
47 8-pin Power Connector (J55)
48 Front Panel Header (J22)
49 8-pin Power Connector (J12)
50 8-pin Power Connector (J34)
51 8-pin Power Connector (J32)
52 4-pin Power Connector (J40)
53 8-pin Power Connector (J33)
54 Intrusion Header (J1_FPGA)
55 CPLD JTAG Header (J3_FPGA)
56 M.2 Connector (CN1) PCIE ONLY
57 CPU1_FAN (J4)
58 CPU0_FAN (J47)
59 SATA DOM (J27)

LEDs
i CPLD HeartBeat LED (D33)
ii PLTRST LED (D41)
iii SYSTEM PWROK LED (D82)
iv BMC HeartBeat LED (D1_BMC)

JUMPERS
a CMOS Clear Jumper (J6_PCH)
b CPLD Power On Jumper (J2_FPGA)
c BMC Reader Jumper (J18)
d ME Recovery Jumper (J3_PCH)
e BIOS Core Execution Tree Jumper (J5_PCH)
f BMC Remote Debug Jumper (J19)
g Top Swap Disabled Jumper (J1_PCH)
h Password Clear Jumper (J2_PCH)
i Manufacture Mode Jumper (J4_PCH)

SLOTS
A PCIE#1 x16(J1) CPU0 P2:0~15
B PCIE#2 x20 (J46) CPU0: PE1 0~15 and PE0 8~11
C PCIE#3 x16(J3) CPU1 P2:0~15
D PCIE#4 x16(J2) CPU1 P0 :0~15

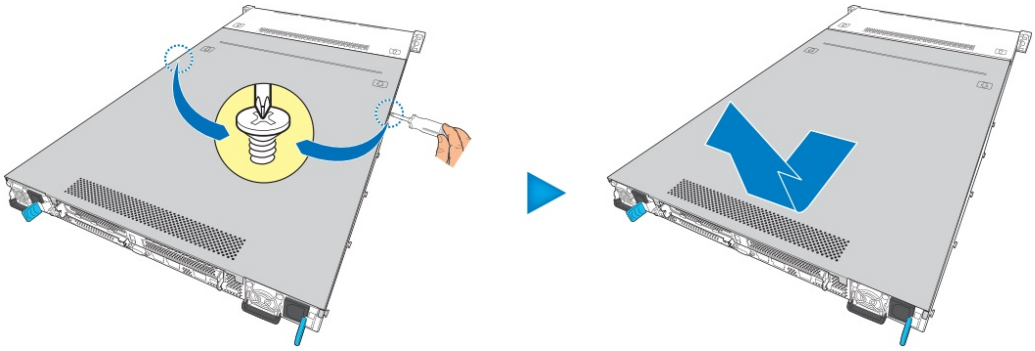
[3] System Installation

Open the Chassis

Preparing the Chassis

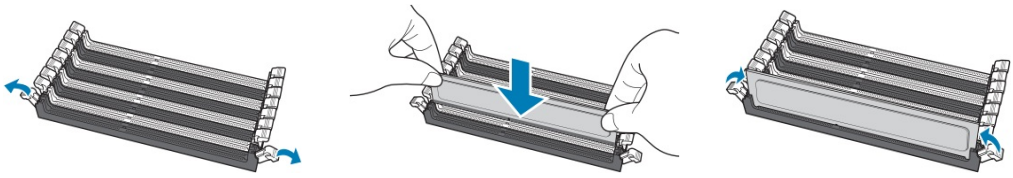
Read normal ESD (Electrostatic Discharge) procedures.

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) Remove the two screws from the top cover. **(2)** Slide and then remove the top cover.

Install the Memory

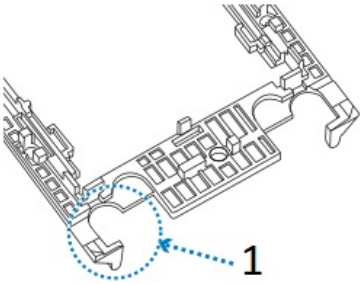


(1) Unlock the clips. **(2)** Insert the memory module. **(3)** Lock the clips.

Install the Processor

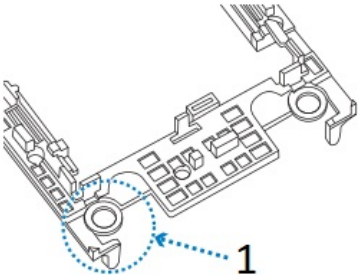
Shim Concept

XCC carrier

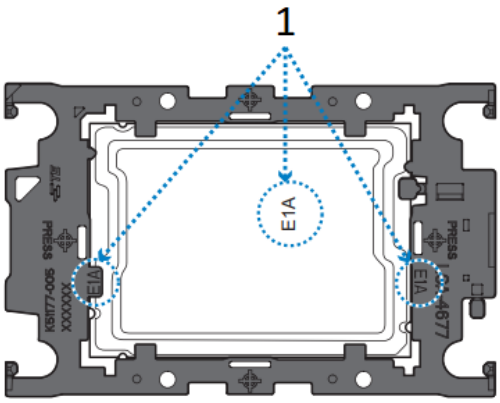


1. No Shim case

MCC carrier

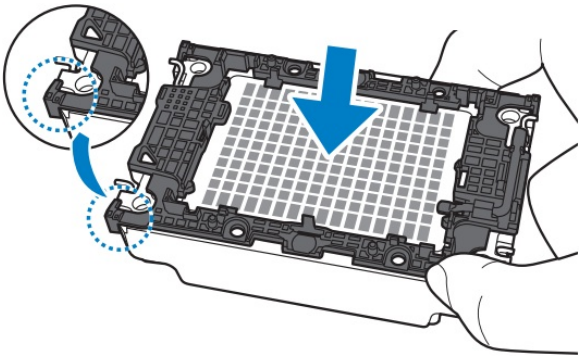


1. Shim installed in package carrier to offset the spring deflection.

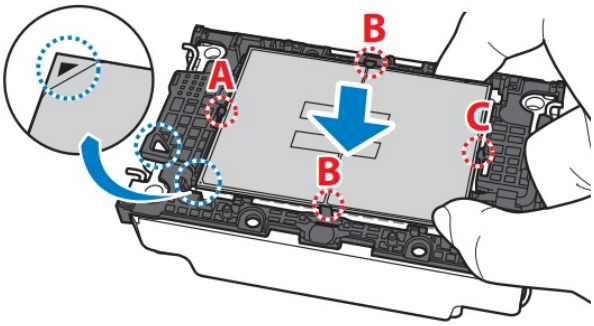


1. **Visual Indicators**

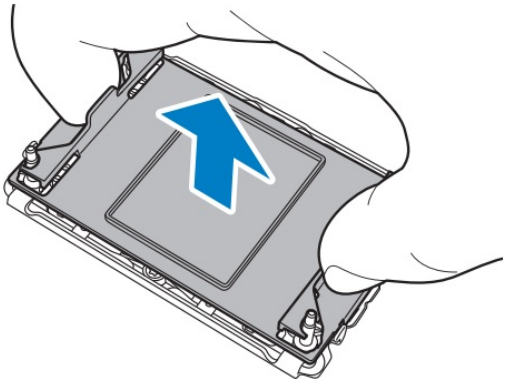
Package Type	XCC	MCC
Shim	NO	YES
Carrier code	E1A	E1B
TE	1-2351052-5	1-2351052-2
FIT	WNMEC00-0NNK1-EH	WNMEC00-0NNK2-EH
LOTES	AZIF0204-P006C	AZIF0240-P003C



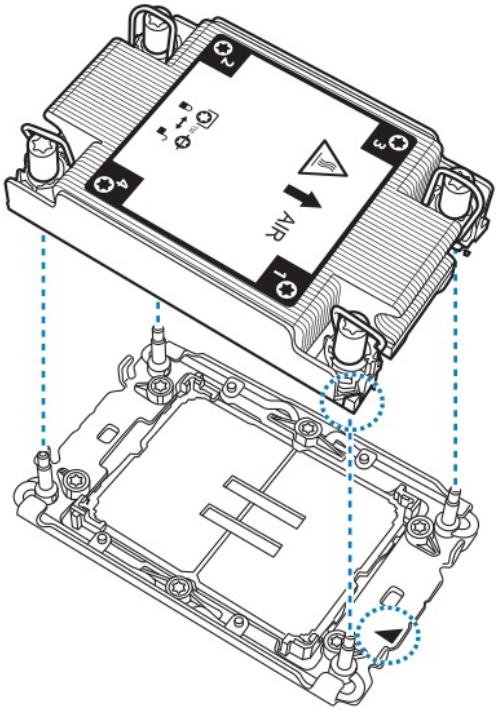
(1) Align the triangle edge of the carrier with the notch on the edge of the heatsink. Then install the carrier on the bottom of the heatsink and make sure the latches are snapped under the edge of the heatsink.



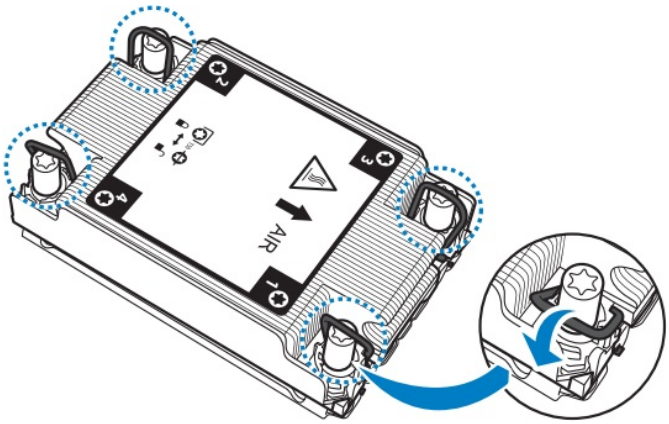
(2) Align and install the processor on the carrier. Make sure the gold arrow is located in the correct direction.
NOTE: When installing the processor, secure the front side (**A**) first, and following with the middle and rear sides (**B⇨C**).



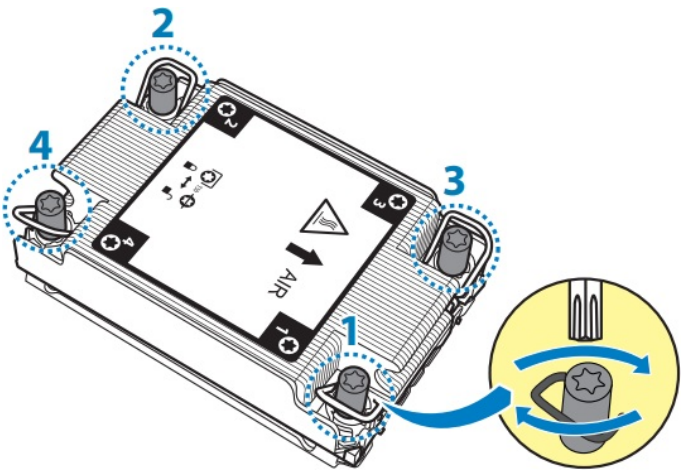
(3) Remove the CPU cover.



(4) Carefully flip the heatsink assembly. Align the heatsink with the CPU socket by the guide pins. Make also sure that the triangle edge of the carrier is aligned correctly with the triangle mark on the CPU socket. Then place the heatsink assembly onto the top of the CPU socket.

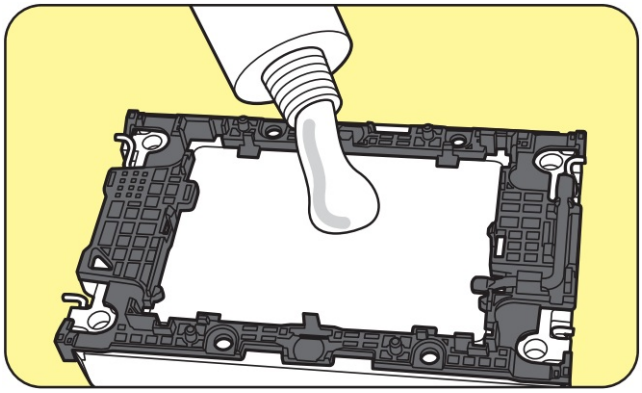


(5) Press down on the retention clips to fix the heatsink assembly to the CPU socket.



(6) To secure the heatsink assembly, use a T30 Security Torx to tighten the screws in a sequential order (1 ⇨2⇨3 ⇨4).

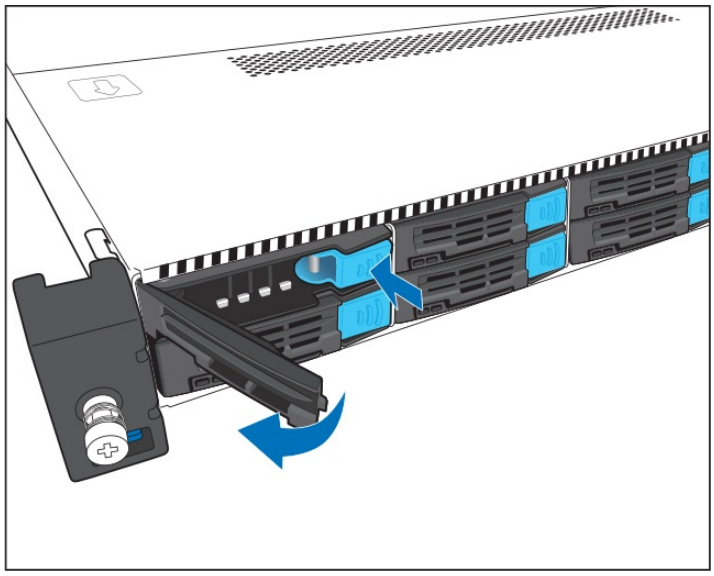
NOTE: When disassembling the heatsink, loosen the screws in reverse order (4 ⇨3⇨2⇨1).



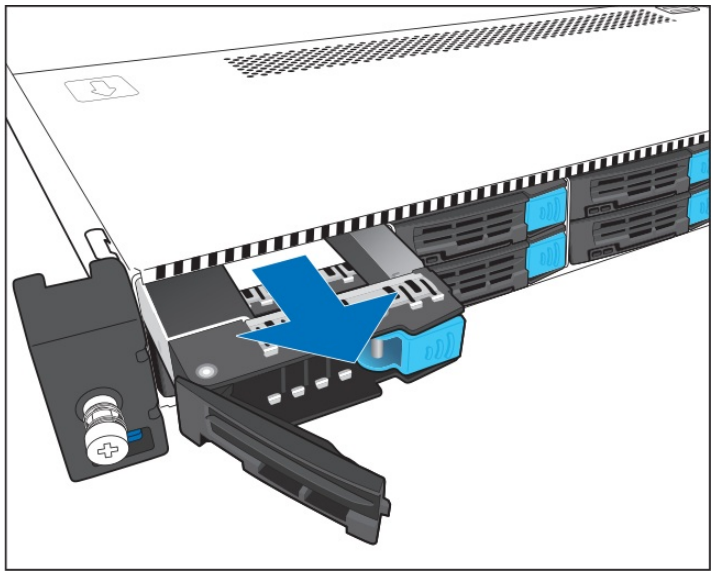
NOTE: A new heatsink comes with pre-applied thermal grease.

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.

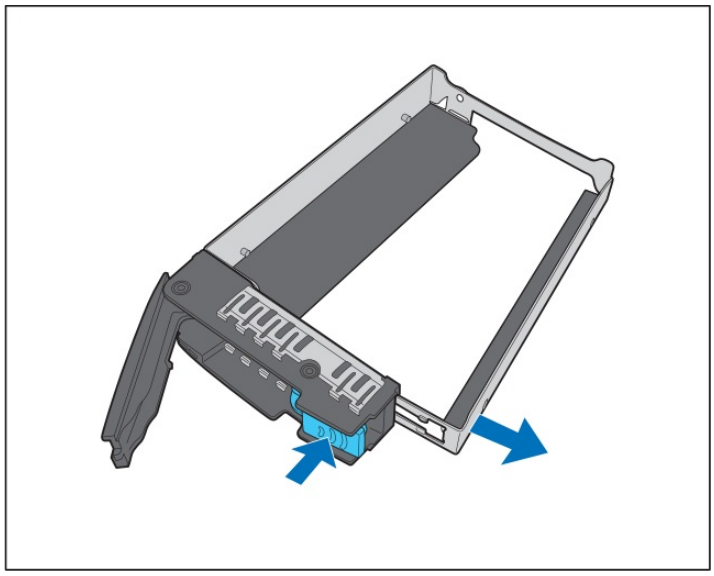
Install the Hard Disk Drives (2.5”)



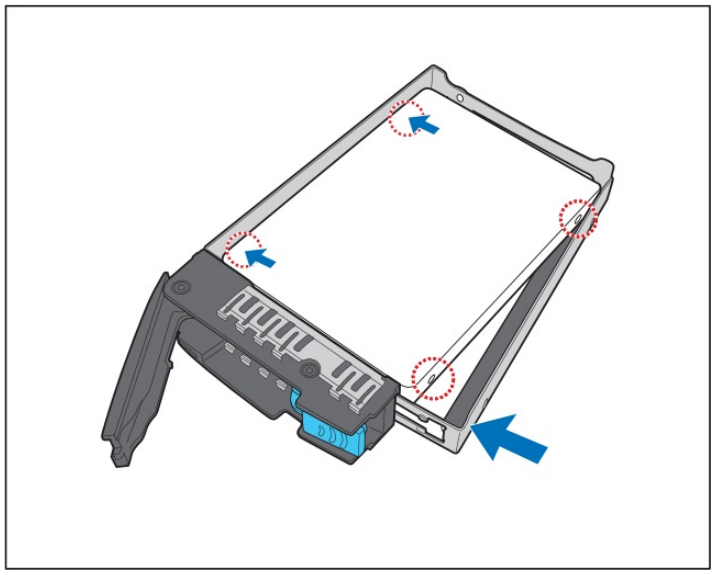
(1) Press on the locking lever latch. The locking lever opens automatically.



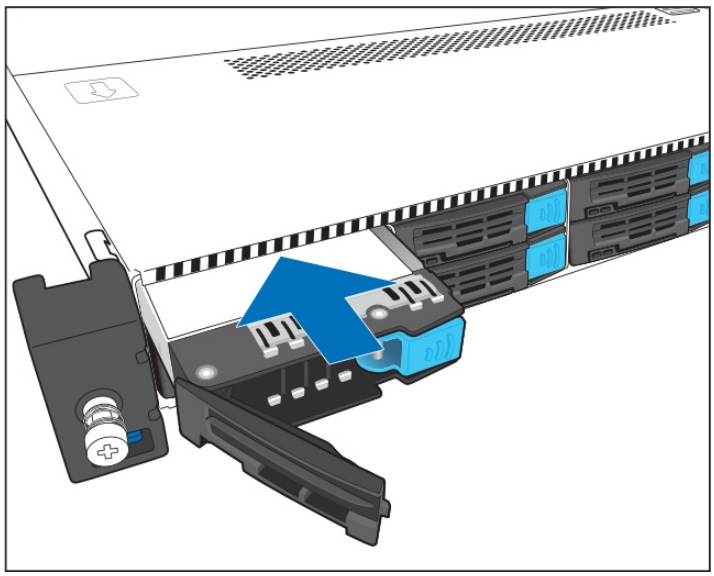
(2) Slide the drive tray out.



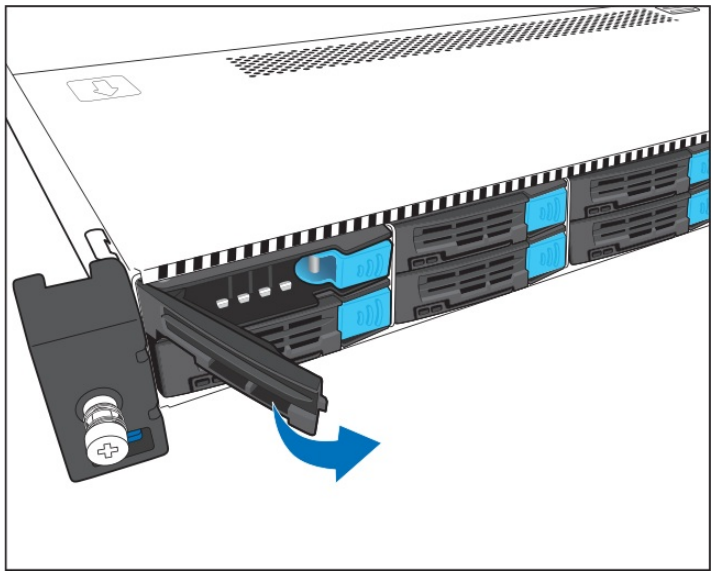
(3) Press the locking lever latch again and pull the upper part of the tray side door outwards.



(4) By aligning with one side of the guide pins, install a 2.5” drive into the drive tray. Close the tray side door firmly to secure the drive in place.

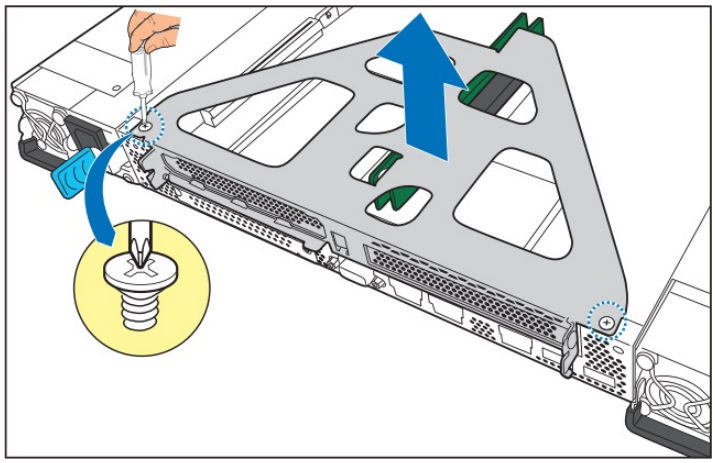


(5) Reinsert the drive tray into the chassis.

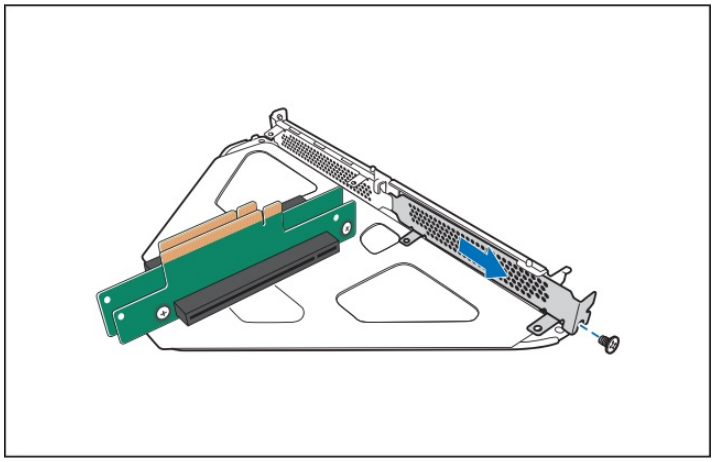


(6) Press the locking lever to secure the tray. Repeat the same procedures to install other drive trays.

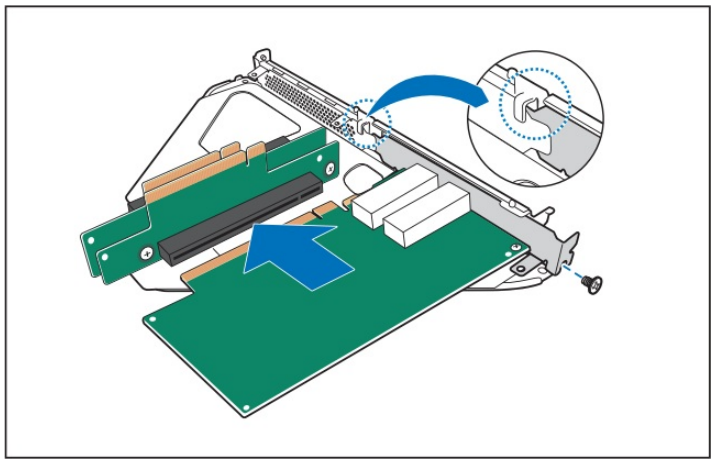
Install the Add-On Card (Optional)



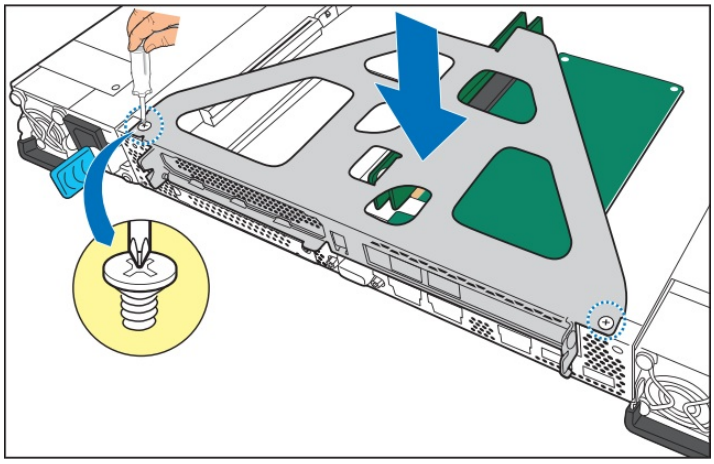
(1) Remove the two screws securing the riser bracket to the chassis. Then lift to remove the riser bracket.



(2) Flip the riser bracket and place on the surface. Then remove the screw and slide to remove the PCI dummy bracket.



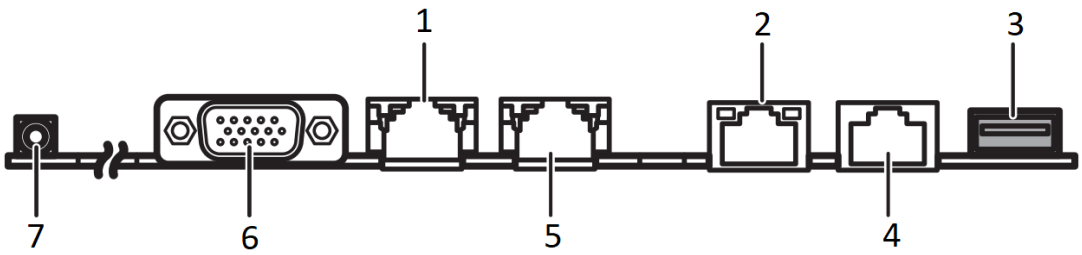
(3) Insert the add-on card to the riser bracket. Make sure the add-on card is latched into the riser bracket. Then secure the add-on card to the riser bracket with a screw.



(4) Carefully flip the riser bracket. Then align and install the riser bracket to its slot on the chassis. Secure the riser bracket to the chassis with two screws.

[4] I/O Ports

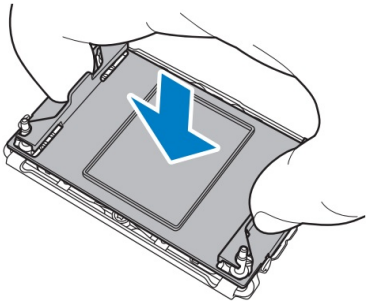
Locate the External I/O Port



1. LAN Port #0
2. LAN Port #3
   (Dedicated IPMI)
3. USB3.1/3.2
4. BIOS COM Port
5. LAN Port #1
6. VGA Port
7. ID Button

[5] Caution

NOTE: Please re-seat the PnP caps prior to returning the server board for service.



5 6 1 8 B 0 3 2 0 0 0 1

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Documents / Resources

	TYAN GC79A-B7132 Barebone Server System [pdf] Installation Guide GC79A-B7132 Barebone Server System, GC79A-B7132, Barebone Server System, Server System

References

- TYAN® Computer - AMD Genoa, Intel Sapphire Rapids servers for HPC, GPU, AI, Datacenter