RSC-1DT3

Rackmount Chassis
User's Manual

UM_RSC-1DT3_v1_063023

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Document Release History

Release Date	Version	Update Content
July, 2023	1	User's Manual release to public.

Preface

Copyright

Trademarks

Changes

The material in this document is for information purposes only and is subject to change without notice.

Warning

1. A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
2. Use only shielded cables to connect I/O devices to this equipment.
3. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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Safety Instructions

Before you commence, please attentively read the following important discretions below. All cautions and warnings on the equipment or in the manuals should be circumspectly noted and reviewed.

Always ground yourself to prevent static electricity.
請全程接地，以防止靜電。
请全程接地，以防止静电。
Всегда заземляйте себя, чтобы избежать статического электричества.
Aard jezelf altijd om statische elektriciteit te voorkomen.

- Firmly ground yourself at all times when installing or assembling the internal components of the server. Most of electronic components in the server are highly sensitive to electrical static discharge.
- Use a solid grounding wrist strap and distinctively place all electronic components in static-shielded devices to prevent static. Grounding wrist straps can be purchased in any electronic supply store.
- Confirm that the power source is turned off and then disconnect the power cords from your system before performing any type of installation or manual servicing. A sudden surge of power could severely damage the sensitive electronic components.
- Do not precipitously open the system's top cover. If you must open the cover for maintenance purposes, only a trained technician should be allowed to proceed this action. Integrated circuits on computer boards are highly sensitive to static electricity. Before operating a board or integrated circuit, touch an unpainted portion of the system unit chassis for a couple of seconds to discharge any static electricity on your body.

Place the server in a stable environment.
請將伺服器放置在穩定的環境中。
请将伺服器放置在稳定的环境中。
Поместите сервер в стабильную среду.
Plaats de server in een stabiele omgeving.

- Place this equipment on a stable surface when installing. A small mild drop or fall could cause fatal injury to both the equipment and the person handling the equipment.
- Please keep this equipment away from humidity to prevent vast rust and disintegration.
- Carefully and accurately mount the equipment into the rack. Uneven mechanical loading may lead to hazardous consequences.
- This equipment is to be installed for operation in an environment with maximum ambient temperature below 35°C.
- Review the environment before performing any installation or servicing. Keep the equipment away from hazardous and uneven grounds.
- This server must be installed only in Restricted Access Locations.

Handle equipment with care.
請謹慎操作設備。
请谨慎操作设备。
Обращайтесь с оборудованием осторожно.
Behandel de apparatuur voorzichtig.

- Do not cover the openings of the system. The openings on the system are for air convection, which intentionally protect the equipment from overheating.
- Never pour any liquid into ventilation openings of the system. This could cause catastrophic fire or electrical shock.

- Ensure that the voltage of the power source is within the specification on the label when connecting the equipment to the power outlet. The current load and output power of loads must be within the specification.
- This equipment must be firmly connected to reliable grounding before usage. Pay special attention to power supplied other than direct connections, e.g. using of power strips.
- Place the power cord out of the way of foot traffic. Do not place anything over the power cord. The power cord must be rated for the product, voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.

Pay attention to hardware maintenance.
注意硬體維護。
注意硬体维护。
Обратите внимание на обслуживание оборудования.
Besteed aandacht aan hardware-onderhoud.

- If the equipment is not used for a long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
- Module and drive bays must not be empty. They must have a dummy cover.
- Never open the equipment without professional assistance. For safety reasons, only qualified service personnel should open the equipment.
- If one of the following situations arise, the equipment should be checked and tested by service personnel:
  1. The power cord or plug is damaged.
  2. Liquid has penetrated the equipment.
  3. The equipment has been exposed to moisture.
  4. The equipment does not work well or will not work according to its user manual.
  5. The equipment has been dropped and/or damaged.
  6. The equipment has obvious signs of breakage.
  7. Please disconnect this equipment from the AC outlet before cleaning. Do not use liquid or detergent for cleaning. The use of a moisture sheet or cloth is recommended for cleaning.

CAUTION
The equipment intended for installation should be placed in Restricted Access Location.

CAUTION
There will be a risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions. After performing any installation or servicing, make sure the enclosure is correct in position before turning on the power.

CAUTION
This unit may have more than one power supply. Disconnect all power sources before maintenance to avoid electric shock.

About This Manual

Thank you for selecting and purchasing RSC-1DT3.

This user's manual is provided for professional technicians to perform easy hardware setup, basic system configurations, and quick software startup. This document pellucidly presents a brief overview of the product design, device installation, and firmware settings for 1 DT3 Rackmount Chassis. For the latest version of this user's manual, please refer to the AIC® website: https://www.aicipc.com/en/productdetail/51437.

Chapter 1 Product Features

This chapter delivers the overall layout of the product, including the fundamental components of the rackmount chassis, design specifications, and noteworthy features.

Chapter 2 Hardware Setup

This chapter displays an easy installation guide for assembling the chassis. Utmost caution for proceeding to set up the hardware is highly advised.

Chapter 3 Hardware Specifications

This chapter elaborates the overall layout of the hardware design, including multifarious connectors, jumpers, and LED descriptions.

Chapter 4 Technical Support

For more information or suggestion, please contact the nearest AIC® corporation representative in your district or visit the AIC® website: https://www.aicipc.com/en/index. It is our greatest honor to provide the best service for our customers.

Chapter 1. Product Features

RSC-1DT3 is a flexible rackmount storage chassis with tool-less design. This product supports hot swappable HDDs and easy swap fans. For more information about our product, please visit our website at https://www.aicipc.com/en/index.

Before removing the subsystem from the shipping carton, visually inspect the physical condition of the shipping carton. Exterior damage to the shipping carton may indicate that the contents of the carton are damaged. If any damage is found, do not remove the components; contact the dealer where the subsystem was purchased for further instructions. Before continuing, first unpack the subsystem and verify that the number of components in the shipping carton is accurate and in good condition.

1.1 Components

This product contains the components listed below.
Please confirm the number and the condition of the components before installation.

- Enclosure (includes power supply, fan & hard disk drive tray)
- Power cord (vary per region)
- Slide rail x 1 set (optional)

Product specifications and features are subject to change without prior notice.

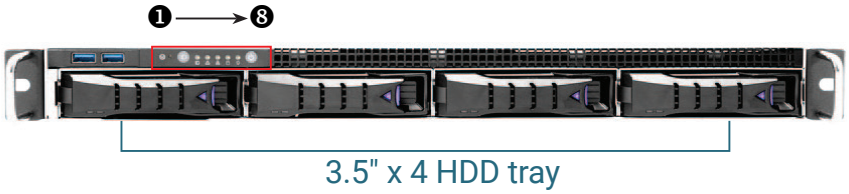
1.2 Specifications

Dimensions (W x D x H)	mm : 438 x 680 x 43.5	**Drive Bays**	External	3.5” hot swap	4
	inches : 17 x 26.8 x 1.72		Internal	2.5”	2
Industry Standard	EIA-RS310D	**Backplane**	• SKU03: 1 x 4-port SATA/SAS/NVMe backplane with 1 x SFF-8643 + 2 x SFF-8654 (Slimline 8i) connectors • Optional SKU: 1 x 4-port SATA/SAS backplane	
Material	SGCC	**Storage Temperature**	0ºC(32ºF) ~ 50ºC(122ºF)	
Color	Front Panel : Black	**Humidity**	5%~95% non-condensing	
Cooling	6 x 40x56mm easy swap fans	**Gross Weight**	(w/ PSU & Rail)	kgs : 17
Power Supply	750W 1+1 redundant power supply			lbs : 37.5
Expansion Slots	1 full height	**Packaging Dimensions**	(W x D x H)	mm : 890 x 670 x 210
Front Panel	System power on/off and system reset, 2 x USB 3.0 ports			inches : 35 x 26.4 x 8. 3
LED Indicators	Power, HDD, LAN	**Mounting**	Standard	28” tool-less slide rail
System Board	Up to 12”(W) x 13”(D) EATX MB			

1.3 Feature

- 1U 4Bay tri-mode 3.5” hot swap HDD/SSD/NVMe
- Two internal 2.5” 7mm device (when power is 750W supports up to two internal NVME)
- Supports 1 full height expansion slot
- Supports redundant power supplies
- Supports EATX motherboard
- Two front access USB 3.0 ports

Front Panel

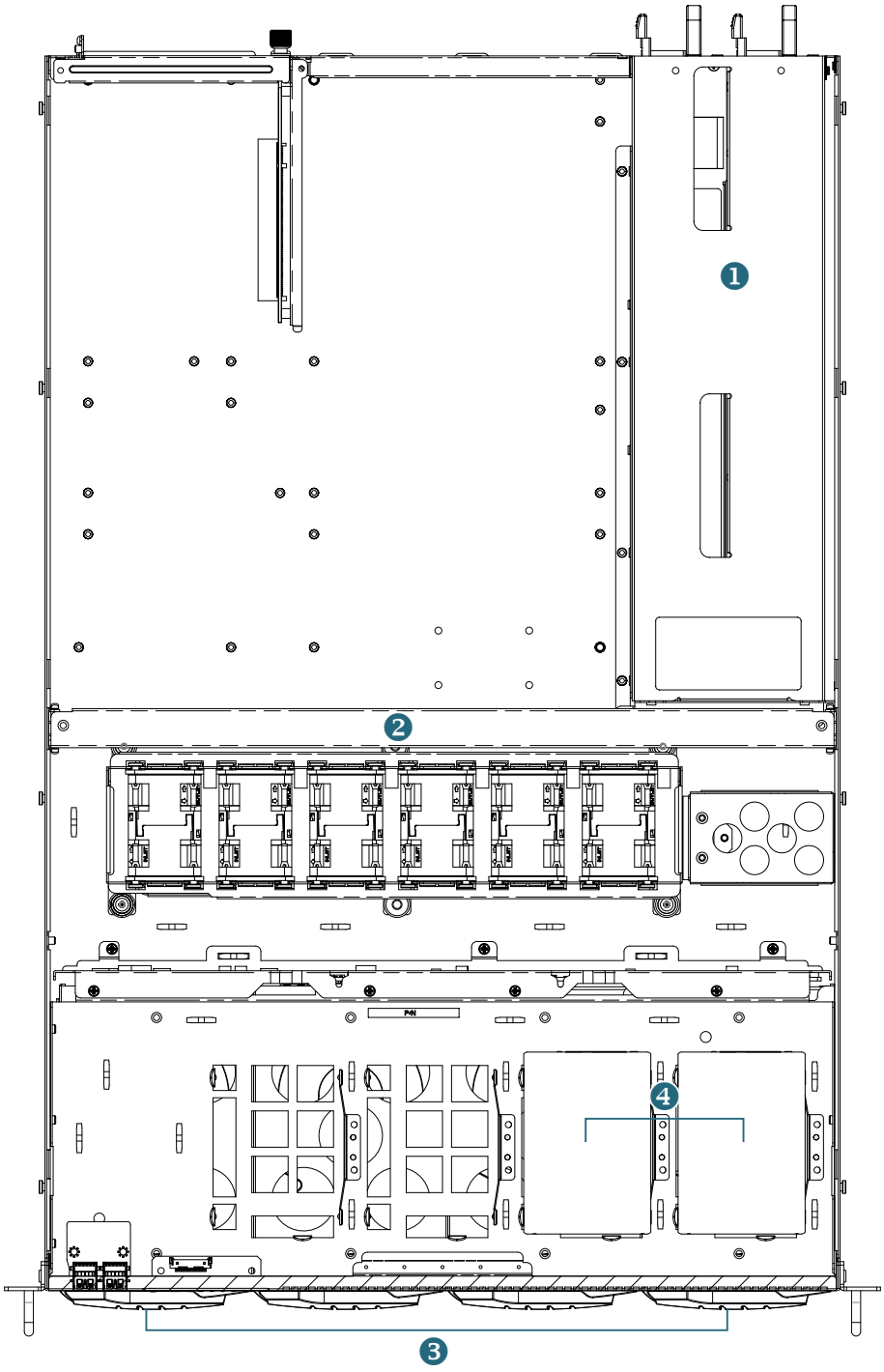


System Switches and LED indicators in front panel

❶		System Reset Switch
❷	ID	System ID Switch
❸	ID	System ID LED
❹		System Fault LED
❺		System LAN LED
❻	H	System HDD LED
❼		System Power LED
❽		System Power Switch

Rear Panel

Top View



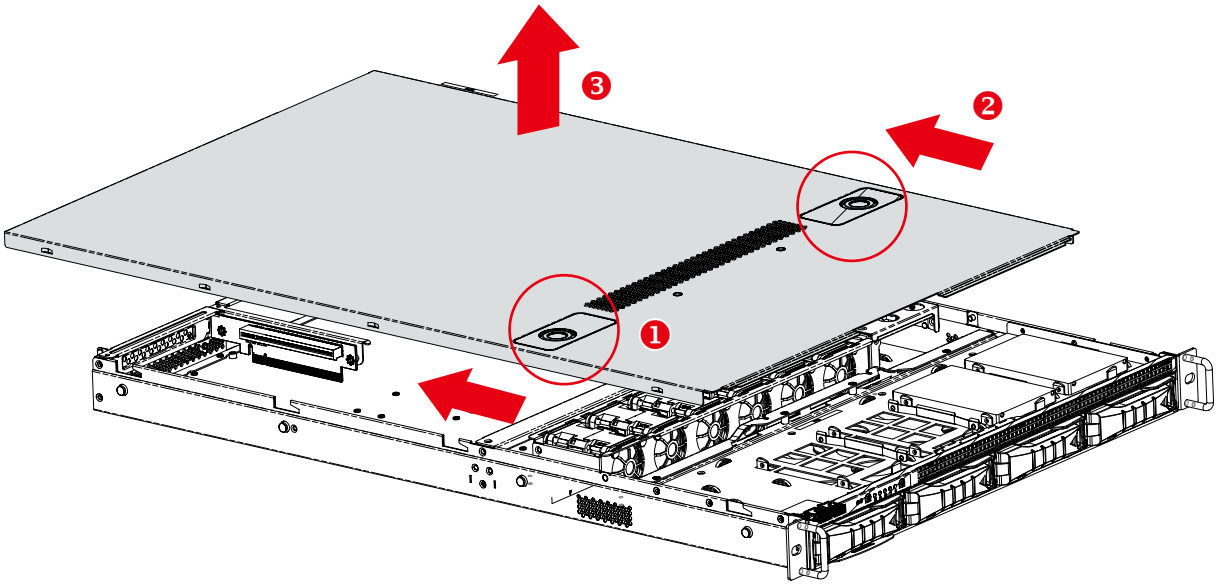
Item	Description
1	750W 1+1 redundant power supply
2	6 x 40x56mm easy swap fans
3	4 x 3.5-inch disk drive bays (external)
4	2 x 2.5-inch disk drive bays (when power is 750W top supports up to two internal NVME)

NOTE
Motherboard is not included in the product.

Chapter 2. Hardware Setup

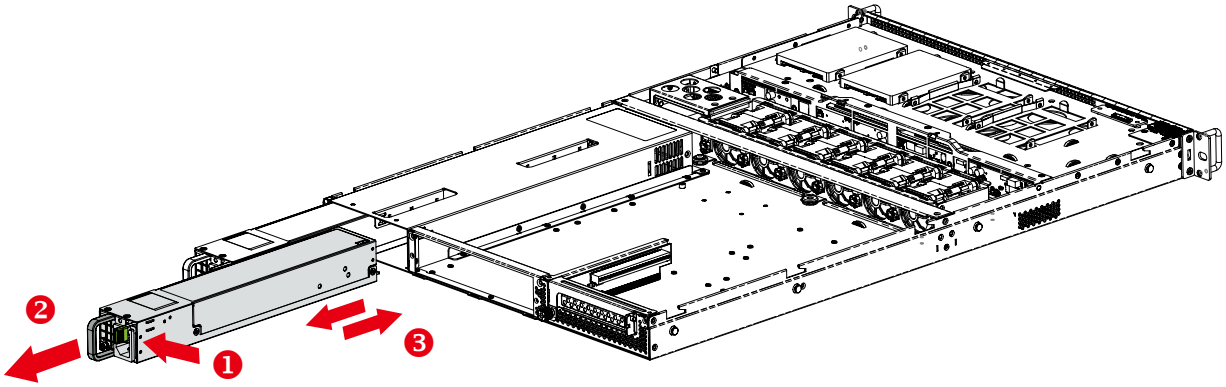
2.1 Top Cover

① Press the release button on both sides of the top cover
② Push the top cover toward the rear panel.
③ Lift up the top cover to complete removal.



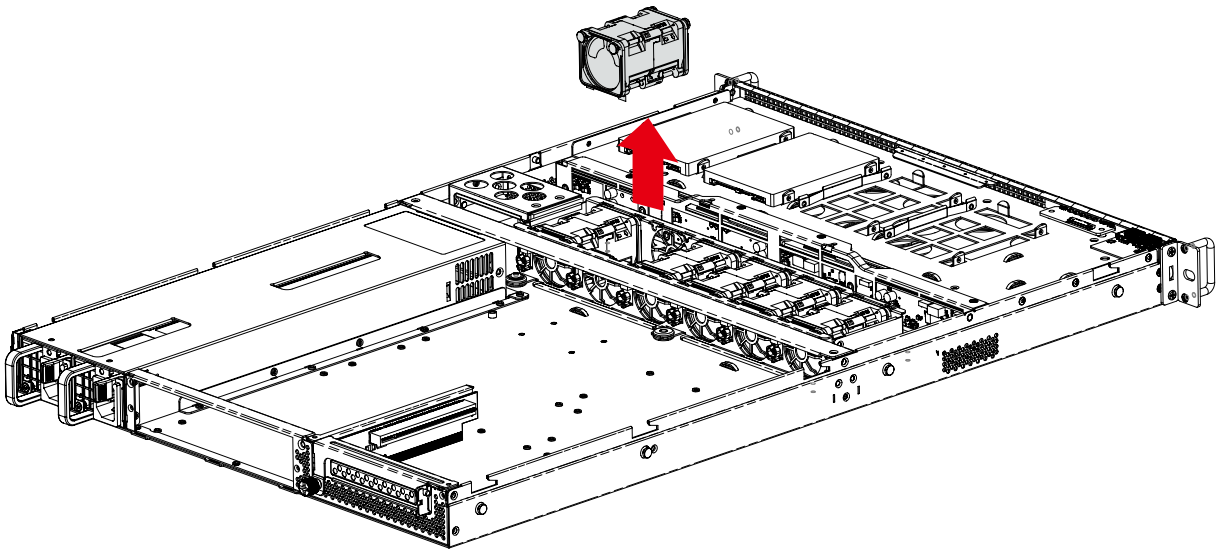
2.2 Power Supply Unit Module

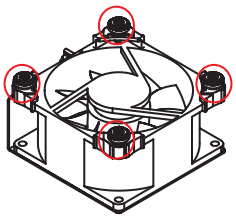
① Extract the power supply unit by pushing the ejector while pulling the power supply unit.
② Pull the module completely out of the chassis.
③ Install the new power supply unit by pushing it into the chassis. Ensure that the module is accurately inserted and locked into the chassis.



2.3 Fan Module

① Unplug the cables and connectors.
② Lift the fan module upward. Check to carefully dislodge the rubber connectors from the attached bracket.
③ Insert the new fan into the chassis. Verify to align the rubber connectors with the appropriate slot in the bracket.

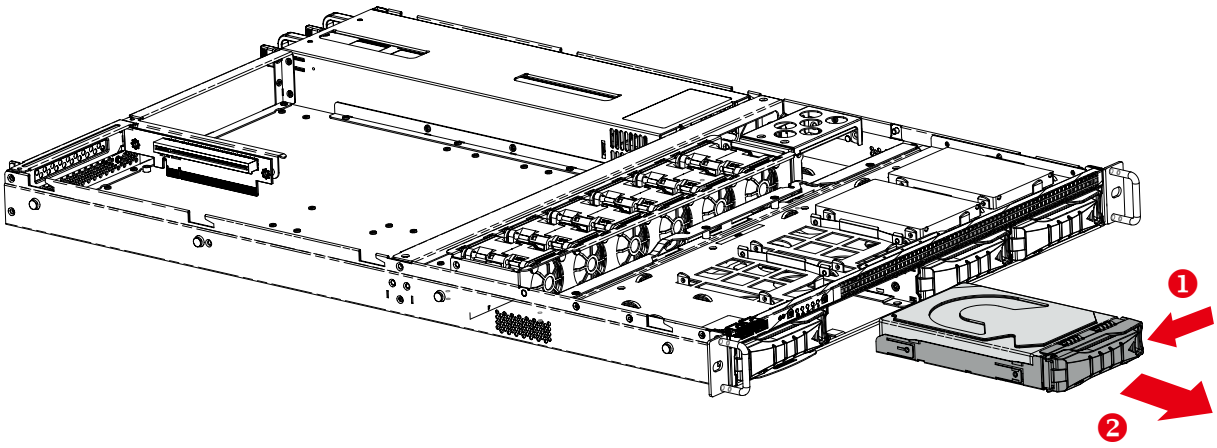




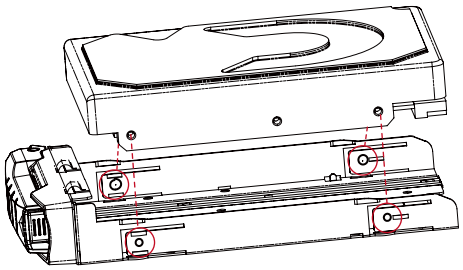
Rubber connectors

2.4 Hard Disk Drive

① Press the release button on the tray lever to loosen the lever.
② Pull the tray lever outward completely.
③ Pull the tray out of the chassis.



④ Match the dimples on the tray to insert the HDD into the tray. Pull upward to remove the HDD from the HDD tray. Make certain that the HDD is not damaged during installation or removal process.



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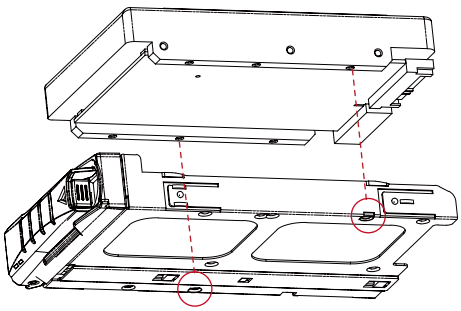
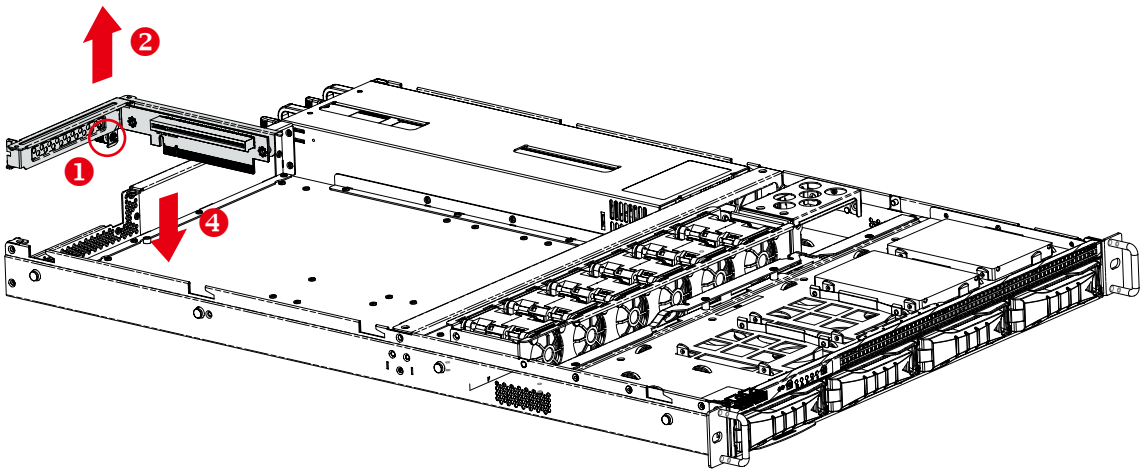


2.5 Riser Card

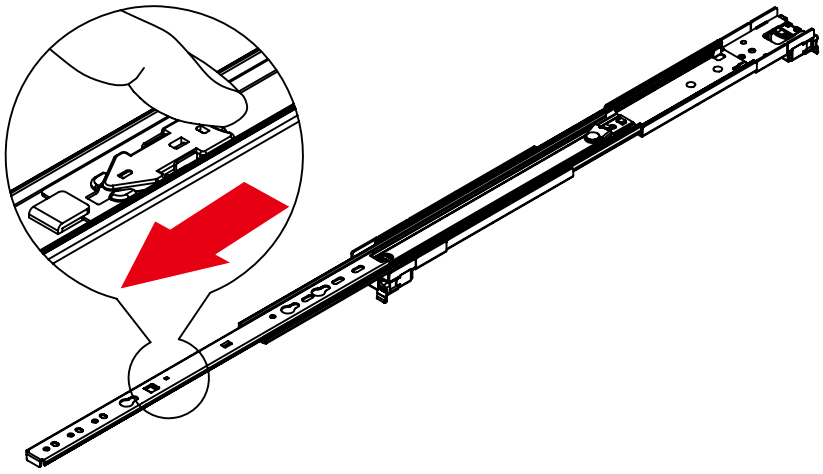
① Loosen the thumb screw on the riser card bracket.
② Pull the riser card bracket out of the chassis.
③ Insert the PCIe card into the riser card bracket.
④ Install the bracket with the PCIe card into the chassis.



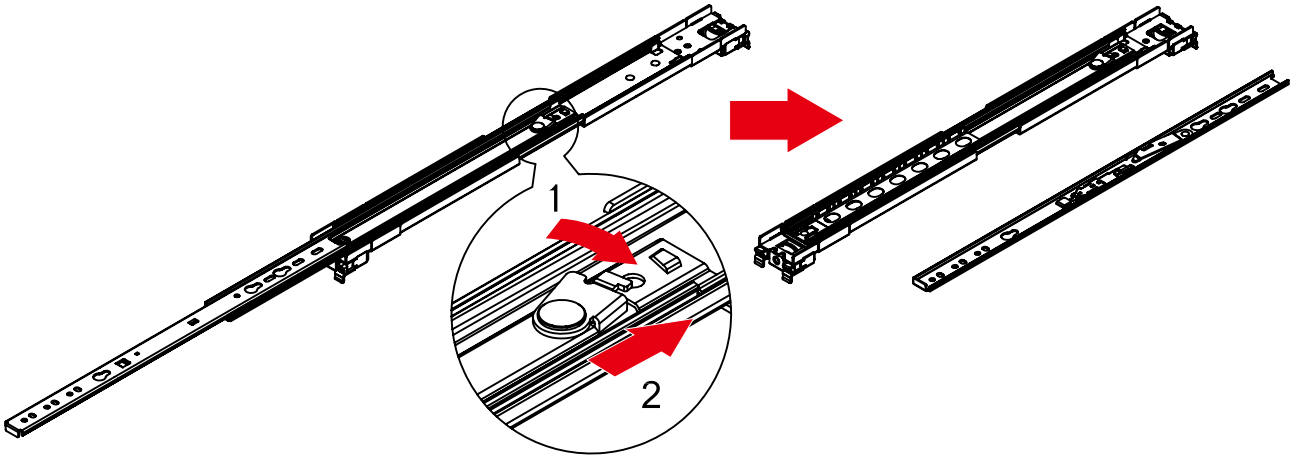
2.6 Slide Rail

NOTE
This sections provides a basic instruction for mounting the slide rail onto the system. Tool-less rails vary per order. The rail in this manual may not exactly match the rail for your system. Please refer to the specifications or quick installation guide that came with your purchased product.

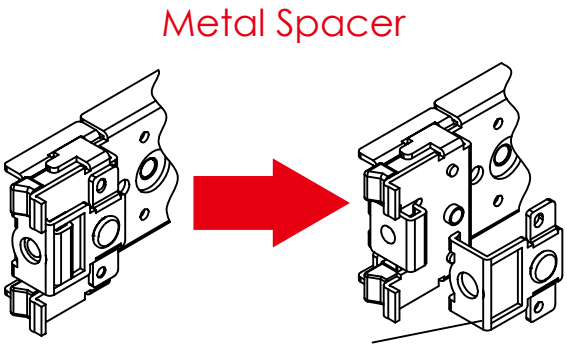
1. Pull on the “Front-Release” to unlock the inner channel from the Slide Assembly.

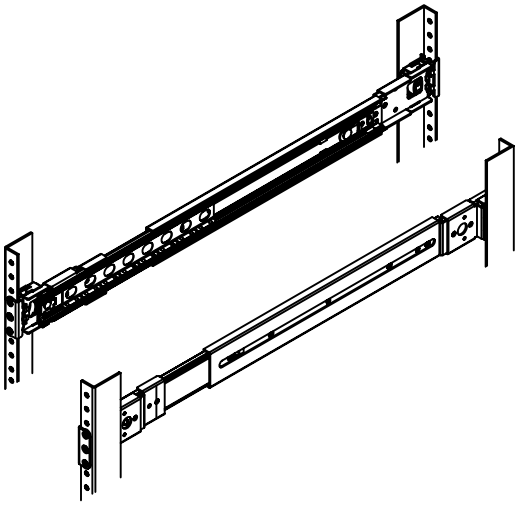


2. Release the Detent-Lock and push Middle Channel inwards to retract Middle Channel.

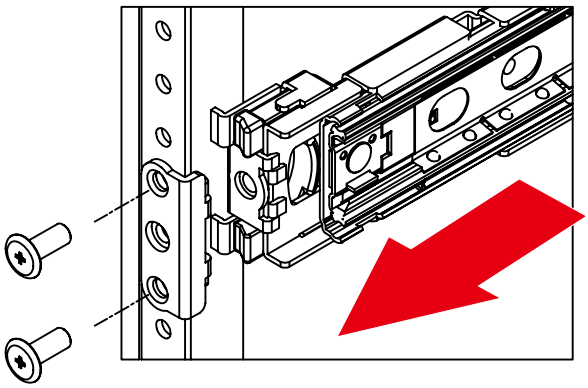


Optional:
Remove Metal Spacer for Aluminium Racks

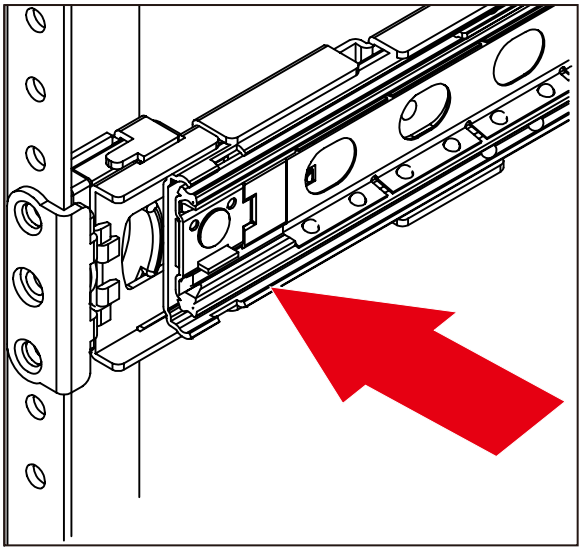




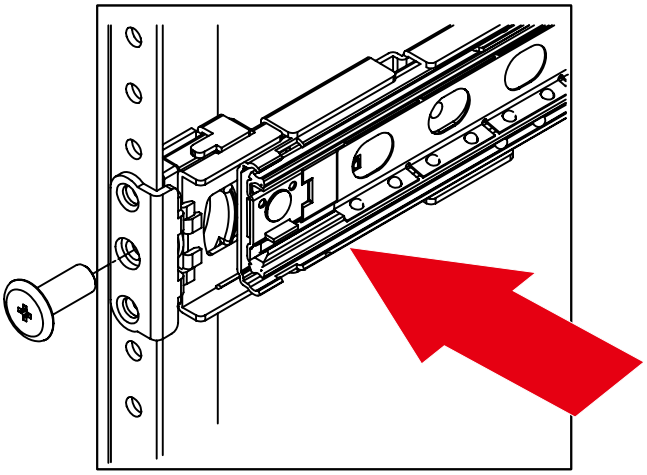
3. Aligning the Front Bracket with the Mounting Hole.



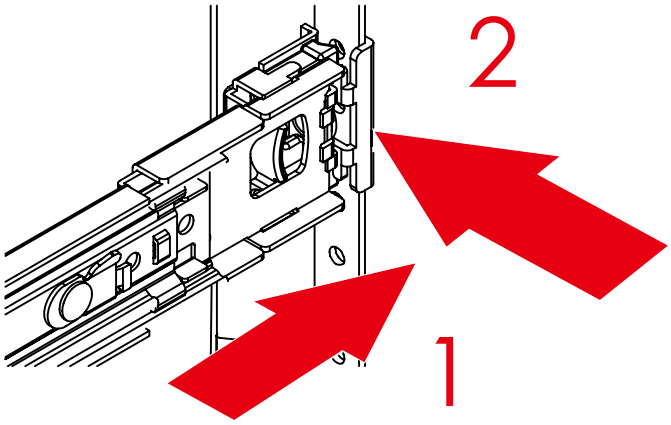
4. Push in to assembly the Front Bracket onto the Rack.



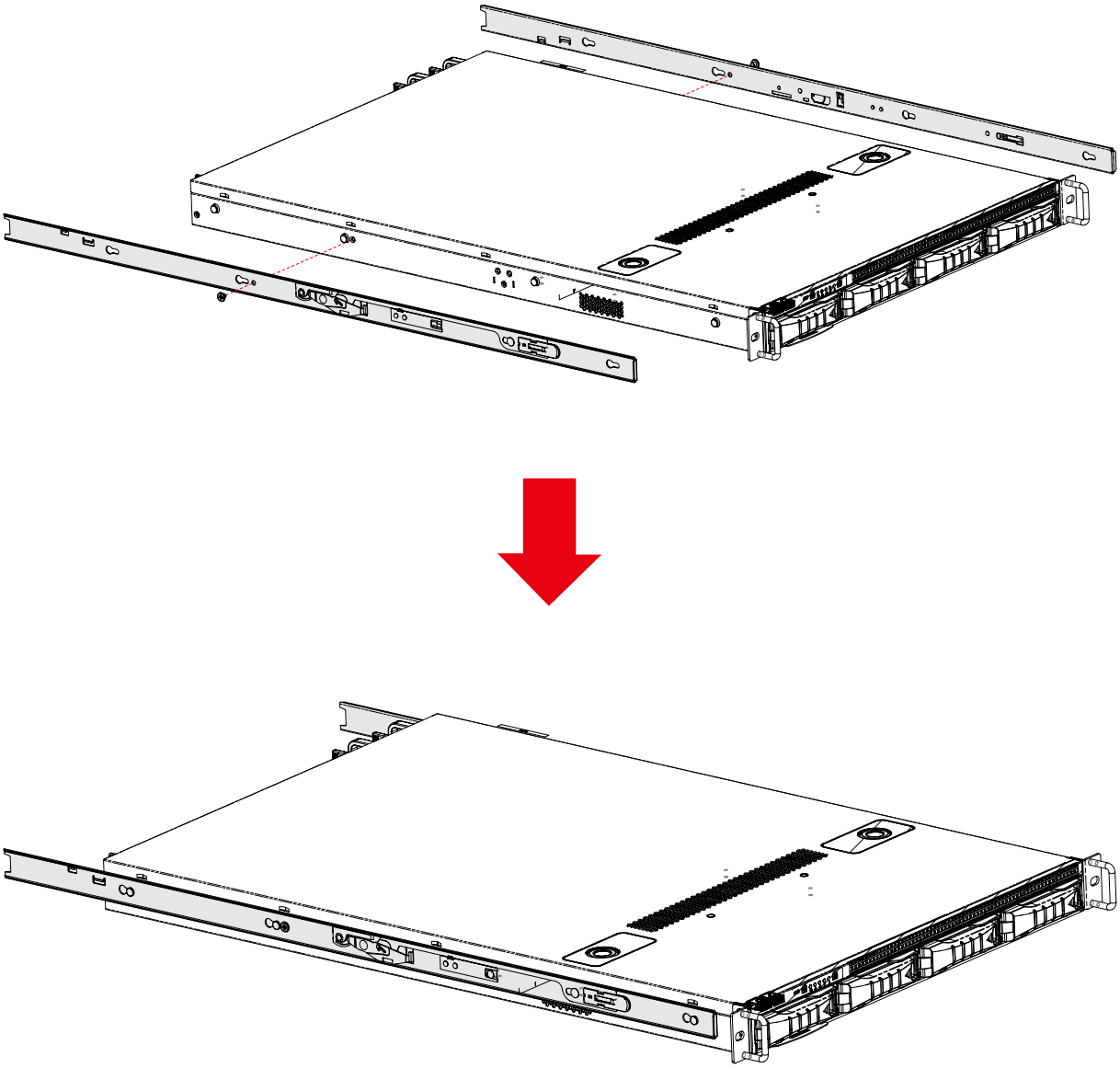
5. Now the bracket is fixed onto the Rack.
(Optional M6x10L screws are to secure the rails with posts if needed.)



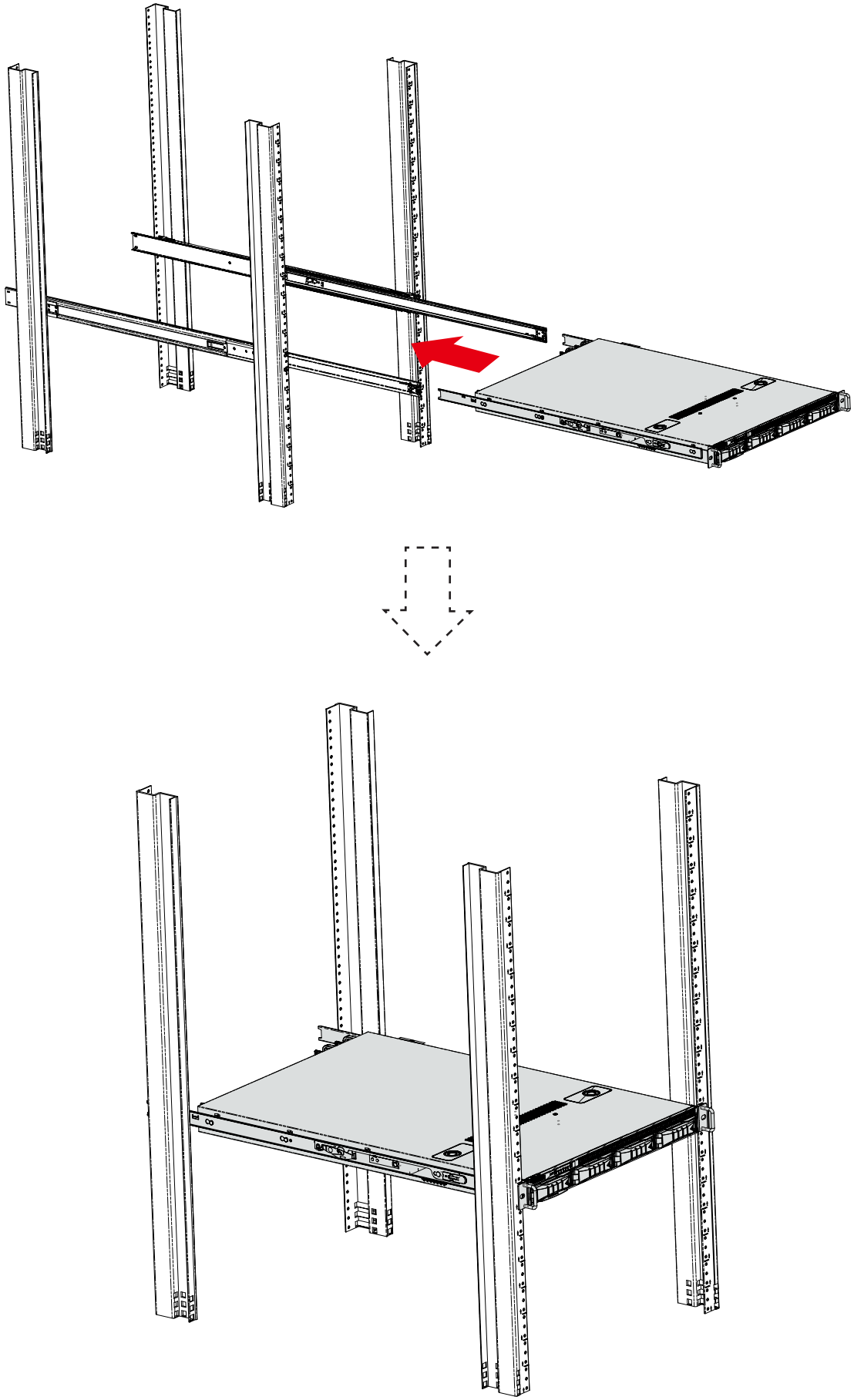
6. Refer to step 3 and 4 to assemble the End Bracket onto the Rack.



7. Assemble the inner channel onto the chassis using the screws provided.



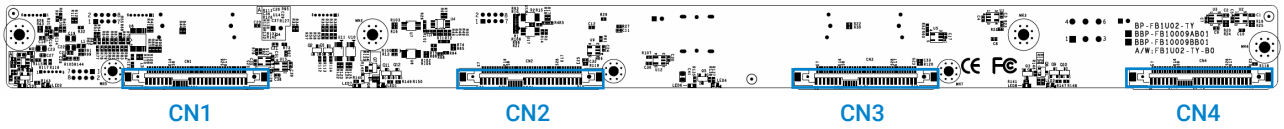
8. Push the chassis with inner channels into Slide to complete Rack Installation.



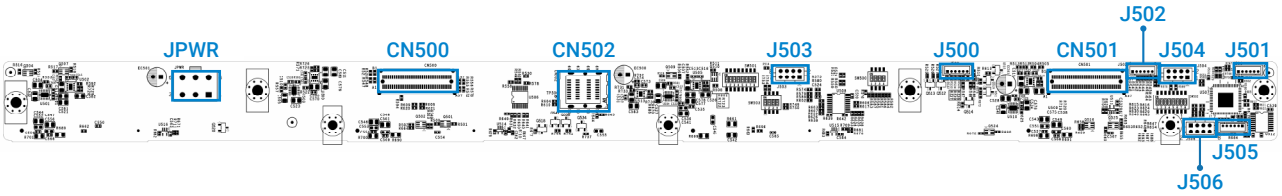
Chapter 3. Hardware Specifications

3.1.1 Placement

Top view



Bottom view



3.1.2 Connector

Summary

Connector Function	Description	Comments
PCIE4.0 / SAS3.0 / SATA2.0	SFF-8639	CN1, CN2, CN3, CN4
PCIE4.0	SFF-8654	CN500, CN501
SAS3.0 / SATA2.0	SFF-8643	CN502
SGPIO / UBM2 / BMC I2C	2 x 4 Pin 2.54mm Box Header	J503
SSGPIO / UBM0 / BMC I2C	2 x 4 Pin 2.54mm Box Header	J506
PCIE Hot-Plug SMBus	2 x 4 Pin 2.54mm Box Header	J504
SKU-B UBM	1 x 6 Pin 1.25mm Box Header	J500
SKU-B UBM	1 x 6 Pin 1.25mm Box Header	J501
SKU-B UBM	1 x 6 Pin 1.25mm Box Header	J502
SKU-B UBM	1 x 6 Pin 1.25mm Box Header	J505
Power	2 x 3 Pin 4.2mm ATX Power Connector	JPWR

SFF-8639 Connector Pin-out (CN1)

GND	S1	E7	REFCLK_DP0
SATA_TX_DP0	S2	E8	REFCLK_DN0
SATA_TX_DN0	S3	E9	GND
GND	S4	E10	PCIE_TX_DP0
SATA_RX_DN0	S5	E11	PCIE_TX_DN0
SATA_RX_DP0	S6	E12	GND
GND	S7	E13	PCIE_RX_DN0
N.C.	E1	E14	PCIE_RX_DP0
N.C.	E2	E15	GND
+3.3V	E3	E16	N.C.
N.C.	E4	S8	GND
SSD_PCIE_RST_N0	E5	S9	N.C.
SSD_IFDET2_N0	E6	S10	N.C.
N.C.	P1	S11	GND
N.C.	P2	S12	N.C.
BP_PWRDIS_Q0	P3	S13	N.C.
SSD_IFDET0_N0	P4	S14	GND
GND	P5	S15	N.C.
GND	P6	S16	GND
P5V_0	P7	S17	PCIE_TX_DP1
P5V_0	P8	S18	PCIE_TX_DN1
P5V_0	P9	S19	GND
SSD_PRSNT_N0	P10	S20	PCIE_RX_DN1
SSD_ACT_LED0	P11	S21	PCIE_RX_DP1
GND	P12	S22	GND
P12V_0	P13	S23	PCIE_TX_DP2
P12V_0	P14	S24	PCIE_TX_DN2
P12V_0	P15	S25	GND
		S26	PCIE_RX_DN2
		S27	PCIE_RX_DP2
		S28	GND
		E17	PCIE_TX_DP3
		E18	PCIE_TX_DN3
		E19	GND
		E20	PCIE_RX_DN3
		E21	PCIE_RX_DP3
		E22	GND
		E23	SMB_SSD_CLK0
		E24	SMB_SSD_DAT0
		E25	+3.3V

SFF-8639 Connector Pin-out (CN2)

GND	S1	E7	REFCLK_DP1
SATA_TX_DP1	S2	E8	REFCLK_DN1
SATA_TX_DN1	S3	E9	GND
GND	S4	E10	PCIE_TX_DP4
SATA_RX_DN1	S5	E11	PCIE_TX_DN4
SATA_RX_DP1	S6	E12	GND
GND	S7	E13	PCIE_RX_DN4
N.C.	E1	E14	PCIE_RX_DP4
N.C.	E2	E15	GND
+3.3V	E3	E16	N.C.
N.C.	E4	S8	GND
SSD_PCIE_RST_N1	E5	S9	N.C.
SSD_IFDET2_N1	E6	S10	N.C.
N.C.	P1	S11	GND
N.C.	P2	S12	N.C.
BP_PWRDIS_Q1	P3	S13	N.C.
SSD_IFDET0_N1	P4	S14	GND
GND	P5	S15	N.C.
GND	P6	S16	GND
P5V_1	P7	S17	PCIE_TX_DP5
P5V_1	P8	S18	PCIE_TX_DN5
P5V_1	P9	S19	GND
SSD_PRSNT_N1	P10	S20	PCIE_RX_DN5
SSD_ACT_LED1	P11	S21	PCIE_RX_DP5
GND	P12	S22	GND
P12V_1	P13	S23	PCIE_TX_DP6
P12V_1	P14	S24	PCIE_TX_DN6
P12V_1	P15	S25	GND
		S26	PCIE_RX_DN6
		S27	PCIE_RX_DP6
		S28	GND
		E17	PCIE_TX_DP7
		E18	PCIE_TX_DN7
		E19	GND
		E20	PCIE_RX_DN7
		E21	PCIE_RX_DP7
		E22	GND
		E23	SMB_SSD_CLK1
		E24	SMB_SSD_DAT1
		E25	+3.3V

SFF-8639 Connector Pin-out (CN3)

GND	S1	E7	REFCLK_DP2
SATA_TX_DP2	S2	E8	REFCLK_DN2
SATA_TX_DN2	S3	E9	GND
GND	S4	E10	PCIE_TX_DP8
SATA_RX_DN2	S5	E11	PCIE_TX_DN8
SATA_RX_DP2	S6	E12	GND
GND	S7	E13	PCIE_RX_DN8
N.C.	E1	E14	PCIE_RX_DP8
N.C.	E2	E15	GND
+3.3V	E3	E16	N.C.
N.C.	E4	S8	GND
SSD_PCIE_RST_N2	E5	S9	N.C.
SSD_IFDET2_N2	E6	S10	N.C.
N.C.	P1	S11	GND
N.C.	P2	S12	N.C.
BP_PWRDIS_Q2	P3	S13	N.C.
SSD_IFDET0_N2	P4	S14	GND
GND	P5	S15	N.C.
GND	P6	S16	GND
P5V_2	P7	S17	PCIE_TX_DP9
P5V_2	P8	S18	PCIE_TX_DN9
P5V_2	P9	S19	GND
SSD_PRSNT_N2	P10	S20	PCIE_RX_DN9
SSD_ACT_LED2	P11	S21	PCIE_RX_DP9
GND	P12	S22	GND
P12V_2	P13	S23	PCIE_TX_DP10
P12V_2	P14	S24	PCIE_TX_DN10
P12V_2	P15	S25	GND
		S26	PCIE_RX_DN10
		S27	PCIE_RX_DP10
		S28	GND
		E17	PCIE_TX_DP11
		E18	PCIE_TX_DN11
		E19	GND
		E20	PCIE_RX_DN11
		E21	PCIE_RX_DP11
		E22	GND
		E23	SMB_SSD_CLK2
		E24	SMB_SSD_DAT2
		E25	+3.3V

SFF-8639 Connector Pin-out (CN4)

GND	S1	E7	REFCLK_DP3
SATA_TX_DP3	S2	E8	REFCLK_DN3
SATA_TX_DN3	S3	E9	GND
GND	S4	E10	PCIE_TX_DP12
SATA_RX_DN3	S5	E11	PCIE_TX_DN12
SATA_RX_DP3	S6	E12	GND
GND	S7	E13	PCIE_RX_DN12
N.C.	E1	E14	PCIE_RX_DP12
N.C.	E2	E15	GND
+3.3V	E3	E16	N.C.
N.C.	E4	S8	GND
SSD_PCIE_RST_N3	E5	S9	N.C.
SSD_IFDET2_N3	E6	S10	N.C.
N.C.	P1	S11	GND
N.C.	P2	S12	N.C.
BP_PWRDIS_Q3	P3	S13	N.C.
SSD_IFDET0_N3	P4	S14	GND
GND	P5	S15	N.C.
GND	P6	S16	GND
P5V_3	P7	S17	PCIE_TX_DP13
P5V_3	P8	S18	PCIE_TX_DN13
P5V_3	P9	S19	GND
SSD_PRSNT_N3	P10	S20	PCIE_RX_DN13
SSD_ACT_LED3	P11	S21	PCIE_RX_DP13
GND	P12	S22	GND
P12V_3	P13	S23	PCIE_TX_DP14
P12V_3	P14	S24	PCIE_TX_DN14
P12V_3	P15	S25	GND
		S26	PCIE_RX_DN14
		S27	PCIE_RX_DP14
		S28	GND
		E17	PCIE_TX_DP15
		E18	PCIE_TX_DN15
		E19	GND
		E20	PCIE_RX_DN15
		E21	PCIE_RX_DP15
		E22	GND
		E23	SMB_SSD_CLK3
		E24	SMB_SSD_DAT3
		E25	+3.3V

SFF-8654 Connector Pin-out (CN500)

GND	B1	A1	GND
PCIE_RX_DP7	B2	A2	PCIE_TX_DP7
PCIE_RX_DN7	B3	A3	PCIE_TX_DN7
GND	B4	A4	GND
PCIE_RX_DP6	B5	A5	PCIE_TX_DP6
PCIE_RX_DN6	B6	A6	PCIE_TX_DN6
GND	B7	A7	GND
PCIE_BP_TYPE0	B8	A8	SMB_CPU_CLK0
SMB_CPU_RST0	B9	A9	SMB_CPU_DAT0
GND	B10	A10	GND
REFCLK_DP0	B11	A11	PCIE_RST_N0_R
REFCLK_DN0	B12	A12	SSD_INSERT_N0
GND	B13	A13	GND
PCIE_RX_DP5	B14	A14	PCIE_TX_DP5
PCIE_RX_DN5	B15	A15	PCIE_TX_DN5
GND	B16	A16	GND
PCIE_RX_DP4	B17	A17	PCIE_TX_DP4
PCIE_RX_DN4	B18	A18	PCIE_TX_DN4
GND	B19	A19	GND
PCIE_RX_DP3	B20	A20	PCIE_TX_DP3
PCIE_RX_DN3	B21	A21	PCIE_TX_DN3
GND	B22	A22	GND
PCIE_RX_DP2	B23	A23	PCIE_TX_DP2
PCIE_RX_DN2	B24	A24	PCIE_TX_DN2
GND	B25	A25	GND
PCIE_BP_TYPE1	B26	A26	SMB_CPU_CLK1
SMB_CPU_RST1	B27	A27	SMB_CPU_DAT1
GND	B28	A28	GND
REFCLK_DP1	B29	A29	PCIE_RST_N1_R
REFCLK_DN1	B30	A30	SSD_INSERT_N1
GND	B31	A31	GND
PCIE_RX_DP1	B32	A32	PCIE_TX_DP1
PCIE_RX_DN1	B33	A33	PCIE_TX_DN1
GND	B34	A34	GND
PCIE_RX_DP0	B35	A35	PCIE_TX_DP0
PCIE_RX_DN0	B36	A36	PCIE_TX_DN0
GND	B37	A37	GND

SFF-8654 Connector Pin-out (CN501)

GND	B1	A1	GND
PCIE_RX_DP15	B2	A2	PCIE_TX_DP15
PCIE_RX_DN15	B3	A3	PCIE_TX_DN15
GND	B4	A4	GND
PCIE_RX_DP14	B5	A5	PCIE_TX_DP14
PCIE_RX_DN14	B6	A6	PCIE_TX_DN14
GND	B7	A7	GND
PCIE_BP_TYPE2	B8	A8	SMB_CPU_CLK2
SMB_CPU_RST2	B9	A9	SMB_CPU_DAT2
GND	B10	A10	GND
REFCLK_DP2	B11	A11	PCIE_RST_N2_R
REFCLK_DN2	B12	A12	SSD_INSERT_N2
GND	B13	A13	GND
PCIE_RX_DP13	B14	A14	PCIE_TX_DP13
PCIE_RX_DN13	B15	A15	PCIE_TX_DN13
GND	B16	A16	GND
PCIE_RX_DP12	B17	A17	PCIE_TX_DP12
PCIE_RX_DN12	B18	A18	PCIE_TX_DN12
GND	B19	A19	GND
PCIE_RX_DP11	B20	A20	PCIE_TX_DP11
PCIE_RX_DN11	B21	A21	PCIE_TX_DN11
GND	B22	A22	GND
PCIE_RX_DP10	B23	A23	PCIE_TX_DP10
PCIE_RX_DN10	B24	A24	PCIE_TX_DN10
GND	B25	A25	GND
PCIE_BP_TYPE3	B26	A26	SMB_CPU_CLK3
SMB_CPU_RST3	B27	A27	SMB_CPU_DAT3
GND	B28	A28	GND
REFCLK_DP3	B29	A29	PCIE_RST_N3_R
REFCLK_DN3	B30	A30	SSD_INSERT_N3
GND	B31	A31	GND
PCIE_RX_DP9	B32	A32	PCIE_TX_DP9
PCIE_RX_DN9	B33	A33	PCIE_TX_DN9
GND	B34	A34	GND
PCIE_RX_DP8	B35	A35	PCIE_TX_DP8
PCIE_RX_DN8	B36	A36	PCIE_TX_DN8
GND	B37	A37	GND

SFF-8643 Connector Pin-out (CN502)

GND	C1	A1	SATA_CLOCK
SATA_DATAOUT	C2	A2	BP_TYPE(SMB_SATA_DAT)
GND	C3	A3	GND
SATA_RX_DP1	C4	A4	SATA_TX_DP1
SATA_RX_DN1	C5	A5	SATA_TX_DN1
GND	C6	A6	GND
SATA_RX_DP3	C7	A7	SATA_TX_DP3
SATA_RX_DN3	C8	A8	SATA_TX_DN3
GND	C9	A9	GND
CTRL_TYPE(SMB_SATA_CLK)	D1	B1	SATA_LOAD
SATA_DATAIN(TP)	D2	B2	GND
GND	D3	B3	GND
SATA_RX_DP0	D4	B4	SATA_TX_DP0
SATA_RX_DN0	D5	B5	SATA_TX_DN0
GND	D6	B6	GND
SATA_RX_DP2	D7	B7	SATA_TX_DP2
SATA_RX_DN2	D8	B8	SATA_TX_DN2
GND	D9	B9	GND

UBM Connector (6-pin box header)

J500

1	BP_PWRDIS_Q6
2	BP_PWRDIS_Q7
3	BP_M4
4	BP_M5
5	BP_M6
6	BP_M7

J501

1	BP_LED7
2	SSD_RSTOUT_N4
3	SSD_RSTOUT_N5
4	SSD_RSTOUT_N6
5	SSD_RSTOUT_N7
6	CPRSNT_N2

J502

1	BP_PWRDIS_Q4
2	BP_PWRDIS_Q5
3	BP_M0
4	BP_M1
5	BP_M2
6	BP_M3

J505

1	BP_LRA
2	BP_LRF
3	BP_LRL
4	BP_LED4
5	BP_LED5
6	BP_LED6

SSGPIO / UBM0 / BMC I2C Connector Pin-out (J506)

SSATA_DATAOUT	2	1	SMB_SATA_CLK0
SSATA_LOAD	4	3	SMB_SATA_DAT0
SSATA_CLOCK	6	5	UBM0_SCL
GND	8	7	UBM0_SDA

SGPIO / UBM2 / BMC I2C Connector Pin-out (J503)

SATA_DATAOUT	2	1	SMB_SATA_CLK1
SATA_LOAD	4	3	SMB_SATA_DAT1
SATA_CLOCK	6	5	UBM2_SCL
GND	8	7	UBM2_SDA

PCIE Hot-Plug SMBus Connector Pin-out (J504)

SMB_BP_SHP1_SCL	2	1	SMB_BP_SHP0_SCL
SMB_BP_SHP1_SDA	4	3	SMB_BP_SHP0_SDA
BP_SHPINT_OUT_N1	6	5	BP_SHPINT_OUT_N0
GND	8	7	GND

3.1.3 Dip Switch Setting

SFF-8654 CPU SHP & BMC I2C Configuration (SW501)

SW2-15	SW1-16	Configuration
OFF	OFF	CPU0 SHP0 (Default) CPU1 SHP1 (Default)
ON	OFF	CPU0 SHP0 BMC I2C
OFF	ON	BMC I2C CPU1 SHP1
ON	ON	BMC I2C BMC I2C

SFF-8654 CPU SHP0 & SHP1 Configuration (SW501)

SW4-13	SW3-14	Configuration
OFF	OFF	CPU0 SHP0 NVMe [0:3] CPU0 SHP0 NVMe [4:7]
ON	OFF	CPU0 SHP0 NVMe [0:3] CPU1 SHP1 NVMe [4:7]
OFF	ON	CPU1 SHP1 NVMe [0:3] CPU0 SHP0 NVMe [4:7]
ON	ON	CPU1 SHP1 NVMe [0:3] CPU1 SHP1 NVMe [4:7]

SFF-8654 HBA UBM0 & UBM2 Configuration (SW501)

SW6-11	SW5-12	Configuration
OFF	OFF	HBA0 UBM0 NVMe [0:3] HBA0 UBM0 NVMe [4:7]
ON	OFF	HBA0 UBM0 NVMe [0:3] HBA1 UBM2 NVMe [4:7]
OFF	ON	HBA1 UBM2 NVMe [0:3] HBA0 UBM0 NVMe [4:7]
ON	ON	HBA1 UBM2 NVMe [0:3] HBA0 UBM0 NVMe [4:7]

Vendor ID Configuration (SW502)

SW8-9	SW7-10	Configuration
OFF	OFF	UBM Only
OFF	ON	AVAGO SHP
ON	OFF	AMD / Microsemi SHP
ON	ON	INTEL VPP (Default)

AMD SHP0 address Configuration (SW502)

SHP0_ID2(LD2) SW3-14	SHP0_ID1(LD1) SW2-15	SHP0_ID0(LD0) SW1-16	Configuration
OFF	OFF	OFF	0x50 / 0x52 (Default)
OFF	OFF	ON	0x54 / 0x56
OFF	ON	OFF	0x58 / 0x5A
OFF	ON	ON	0x5C / 0x5E
ON	OFF	OFF	0x60 / 0x62
ON	OFF	ON	0x64 / 0x66
ON	ON	OFF	0x68 / 0x6A
ON	ON	ON	0x6C / 0x6E

AMD SHP1 address Configuration (SW502)

SHP1_ID2(LD5) SW6-10	SHP1_ID1(LD4) SW5-11	SHP1_ID0(LD3) SW4-12	Configuration
OFF	OFF	OFF	0x50 / 0x52 (Default)
OFF	OFF	ON	0x54 / 0x56
OFF	ON	OFF	0x58 / 0x5A
OFF	ON	ON	0x5C / 0x5E
ON	OFF	OFF	0x60 / 0x62
ON	OFF	ON	0x64 / 0x66
ON	ON	OFF	0x68 / 0x6A
ON	ON	ON	0x6C / 0x6E

INTEL VPP0 address Configuration (SW502)

VPP0_ID1(LD1) SW2-15	VPP0_ID0(LD0) SW1-16	Configuration
OFF	OFF	0x40 / 0x42 (Default)
OFF	ON	0x44 / 0x46
ON	OFF	0x48 / 0x4A
ON	ON	0x4C / 0x4E

INTEL VPP1 address Configuration (SW502)

VPP1_ID1(LD1) SW4-13	VPP1_ID0(LD0) SW3-14	Configuration
OFF	OFF	0x40 / 0x42 (Default)
OFF	ON	0x44 / 0x46
ON	OFF	0x48 / 0x4A
ON	ON	0x4C / 0x4E

ALT_VPP SW5-12(LD4)
High (ON): Standard Addressing Mode (Intel only)
Low (OFF): Alternate Addressing Mode (Intel only)

AMD SHP0 address Configuration (SW502)

CONF3 (M3) SW4-5	CONF2 (M2) SW3-6	CONF3 (M3) SW2-7	CONF3 (M3) SW1-8	BMC SMB Address	Configuration
OFF	OFF	OFF	OFF	0xC0	Support 8 Drives with single SGPIO Each starts with a drive offset SAS expander
OFF	OFF	OFF	ON	0xC2	
OFF	OFF	ON	OFF	0xC4	
OFF	OFF	ON	ON	0xC6	
OFF	ON	OFF	OFF	0xC0	Support 8 Drives with single SGPIO Each starts with no drive offset PCH
OFF	ON	OFF	ON	0xC2	
OFF	ON	ON	OFF	0xC4	
OFF	ON	ON	ON	0xC6	
ON	OFF	OFF	OFF	0xC0	Support 8 Drives with dual SGPIO Each starts with no drive offset Each Channel support 4 drives RAID Controller
ON	OFF	OFF	ON	0xC2	
ON	OFF	ON	OFF	0xC4	
ON	OFF	ON	ON	0xC6	
ON	ON	OFF	OFF	0xC0	Support 8 Drives with dual SGPIO Each starts with no drive offset Each Channel support 4 drives PCH or RAID Controller (Default)
ON	ON	OFF	ON	0xC2	
ON	ON	ON	OFF	0xC4	
ON	ON	ON	ON	0xC6	

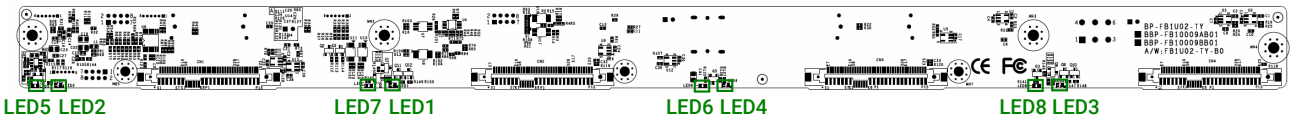
BMC I2C MUX address Configuration (SW503)

I2CMUX_A1_SW SW2-7	I2CMUX_A0_SW SW1-8	Configuration
OFF	OFF	0xE6 / 0xE7 (SKU-A)
OFF	ON	0xE4 / 0xE5 (SKU-B)
ON	OFF	0xE2 / 0xE3
ON	ON	0xE0 / 0xE1

SFF-8654 VPP & UBM Mode Configuration (SW503)

CPRSNT_N0_N2_EN SW3-6	Configuration
OFF	VPP Only
ON	UBM Only

3.1.4 LED Indicator



Item	Color	Description
LED5	Blue (Blinking)	CN1 SSD Activity
	Off	CN1 SSD not activity detected
LED2	Red	CN1 SSD Fault
	Green	CN1 SSD Local
LED7	Blue (Blinking)	CN2 SSD Activity
	Off	CN2 SSD not activity detected
LED1	Red	CN2 SSD Fault
	Green	CN2 SSD Local
LED6	Blue (Blinking)	CN3 SSD Activity
	Off	CN3 SSD not activity detected
LED4	Red	CN3 SSD Fault
	Green	CN3 SSD Local
LED8	Blue (Blinking)	CN4 SSD Activity
	Off	CN4 SSD not activity detected
LED3	Red	CN4 SSD Fault
	Green	CN4 SSD Local

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