



# RSC-4BT3

## Rackmount Chassis User's Manual

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## Document Release History

<b>Release Date</b>	<b>Version</b>	<b>Update Content</b>
September, 2023	1	User's Manual release to public.
February, 2024	1.1	Update BP Dip Switch Setting content.



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# Preface

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## Changes

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## 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 getting started, please read the following important cautions:

- All cautions and warnings on the equipment or in the manuals should be noted.
- Most electronic components are sensitive to electrical static discharge. Therefore, be sure to ground yourself at all times when installing the internal components.
- Use a grounding wrist strap and place all electronic components in static-shielded devices. Grounding wrist straps can be purchased in any electronic supply store.
- Be sure to turn off the power and then disconnect the power cords from your system before performing any installation or servicing. A sudden surge of power could damage sensitive electronic components.
- Do not open the system's top cover. If opening the cover for maintenance is a must, only a trained technician should do so. Integrated circuits on computer boards are sensitive to static electricity. Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
- Place this equipment on a stable surface when install. A drop or fall could cause injury.
- Please keep this equipment away from humidity.
- Carefully mount the equipment into the rack, in such manner, that it won't be hazardous due to uneven mechanical loading.
- This equipment is to be installed for operation in an environment with maximum ambient temperature below 35°C.
- The openings on the enclosure are for air convection to protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
- Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
- Make sure 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 shall be within the specification.
- This equipment must be connected to reliable grounding before using. 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.
- If the equipment is not used for a long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

- If one of the following situations arise, the equipment should be checked 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.
- Module and drive bays must not be empty! They must have a dummy cover.

# About This Manual

Thank you for selecting and purchasing RSC-4BT3.

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 4BT3 Rackmount Chassis. For the latest version of this user's manual, please refer to the AIC website: <https://www.aicipc.com/en/productdetail/51463>.

## **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-4BT3 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.

- Chassis (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.**

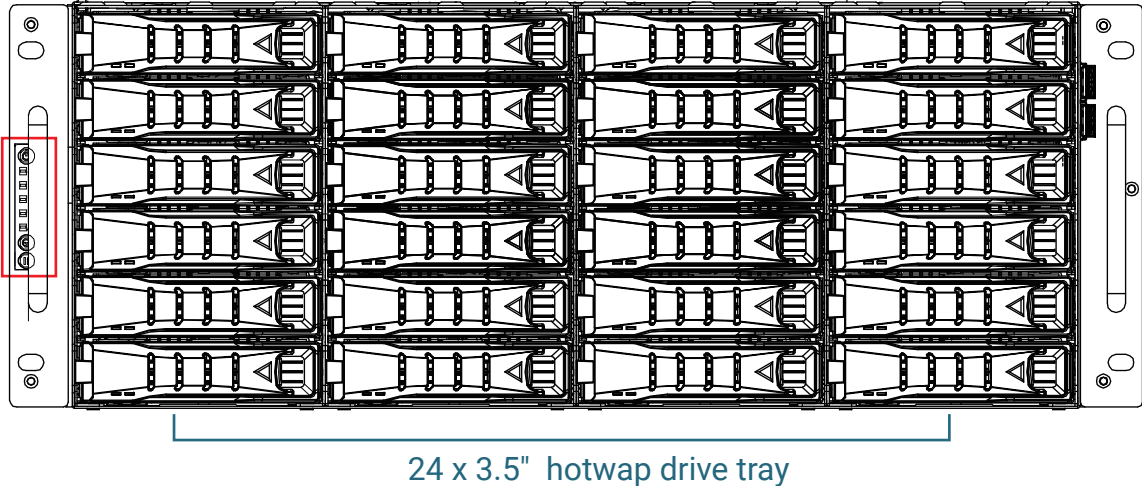
## 1.2 Specifications

<b>Dimensions</b> (W x D x H)	mm : 430 x 680 x 177		<b>Backplane</b>	1 x 24-port 12Gb SATA/SAS backplane with 36-PHY expander chip and 3 SFF-8643 connectors • 8x 3.5"/2.5" tri-mode (NVMe/12G SAS/SATA) passive + 4x 3.5"/2.5" (12G SAS/SATA) passive	
	inches : 17 x 26.8 x 7				
<b>Industry Standard</b>	EIA-RS310D		<b>Storage Temperature</b>	0°C(32°F) ~ 50°C(122°F)	
<b>Material</b>	Heavy-duty preplated SPGC cold-rolled steel		<b>Humidity</b>	5%~95% non-condensing	
<b>Color</b>	Front Panel : Black		<b>Gross Weight</b>	(w/ PSU & Rail)	kgs : 40.4
<b>Cooling</b>	6 x 80x38mm PWM & low-power consumption hot swap fan s				lbs : 89
<b>Power Supply</b>	1200W 1+1 redundant PSU PMBus 1.2 80+ Platinu m		<b>Packaging Dimensions</b>	(W x D x H)	mm : 626 x 931 x 413
<b>Expansion Slots</b>	7 low profile				inches : 24.6 x 36.7 x 16.3
<b>Front Panel</b>	System power on/off, System reset, System ID and 2 x USB 3.0 ports		<b>Cubic Feet</b>	8.3	
<b>LED Indicators</b>	Power, LAN, Drive, ID and Alert		<b>Container Load Quantity</b>	20'	120
<b>System Board</b>	12"(W) x 13"(D) E-ATX/SSI EEB 3.6 compliant MB			40'	245
<b>Drive Bays</b>	External	3.5" hot swap	36	40' H	285
		2.5" hot swap	2 (option)	<b>Mounting</b>	Standard
	Internal	2.5"	2 (option)		

## 1.3 Features

- Tool-less design supports quick installation and easy maintenance:  
Tool-less 3.5" & 2.5" drive trays, top covers, backplane & slide rails
- 12Gb/s SAS expander chip on backplane and 24Gb/s SAS expander chip on backplane (OPT)
- Specially designed hot swap and low power consumption fans minimize rotational vibration and provide superior cooling
- 3.5" drive tray comes with 4 screw holes to adapt to 2.5" drive & 2x 2.5" SATA H/W on rear panel
- 36 (24 front + 12 rear) bays to provide high-density storage in a 4U server chassis, 12x rear bays can change + 8x 3.5"/2.5" tri-mode (NVMe/12G SAS/SATA) passive + 4x 3.5"/2.5" (12G SAS/SATA) passive + 2x 2.5" SATA (7mm)
- Comes with a redundant PSU 80+ Platinum
- Two front access USB 3.0 ports

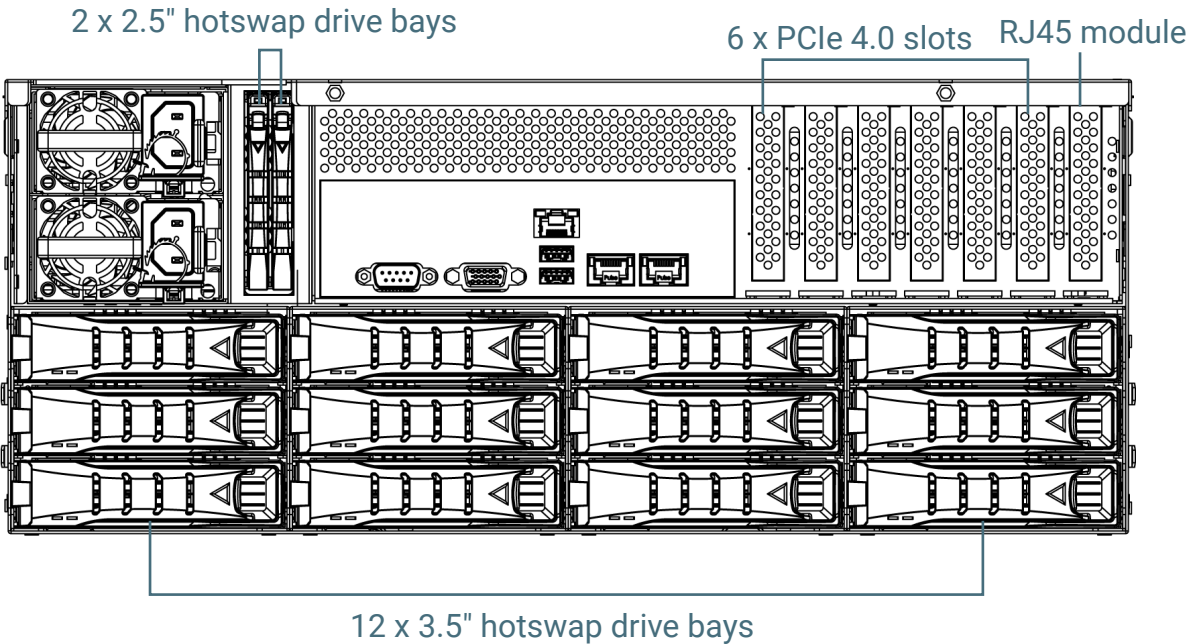
Front Panel



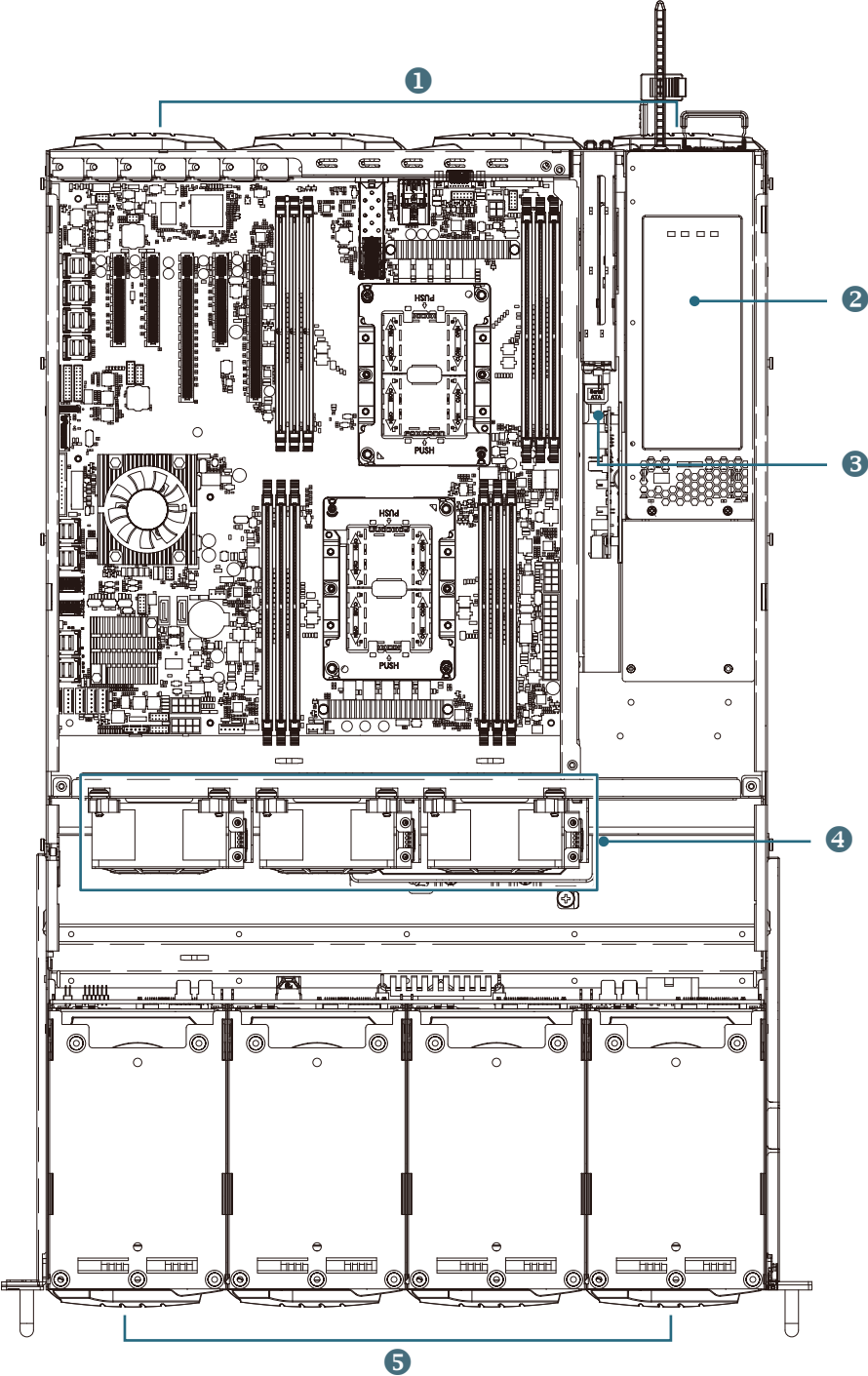
System LED Indicator and switch

Item	Description	Item	Description
	Power Button		System Alert LED
	Power Status LED		System ID LED
	Drive Activity LED		ID Button
	LAN LED		System Reset Button


Rear Panel



Top View



Item	Description
1	12x 3.5-inch hot swap disk drive bays
2	1200W 1+1 redundant power supply 80+Platinum
3	2x 2.5-inch hot swap disk drive bays
4	6 x 80x38mm hotswap fans
5	24 x 3.5-inch hot swap disk drive bays

 **NOTE** Motherboard is not included in this product.

# Chapter 2. Hardware Setup

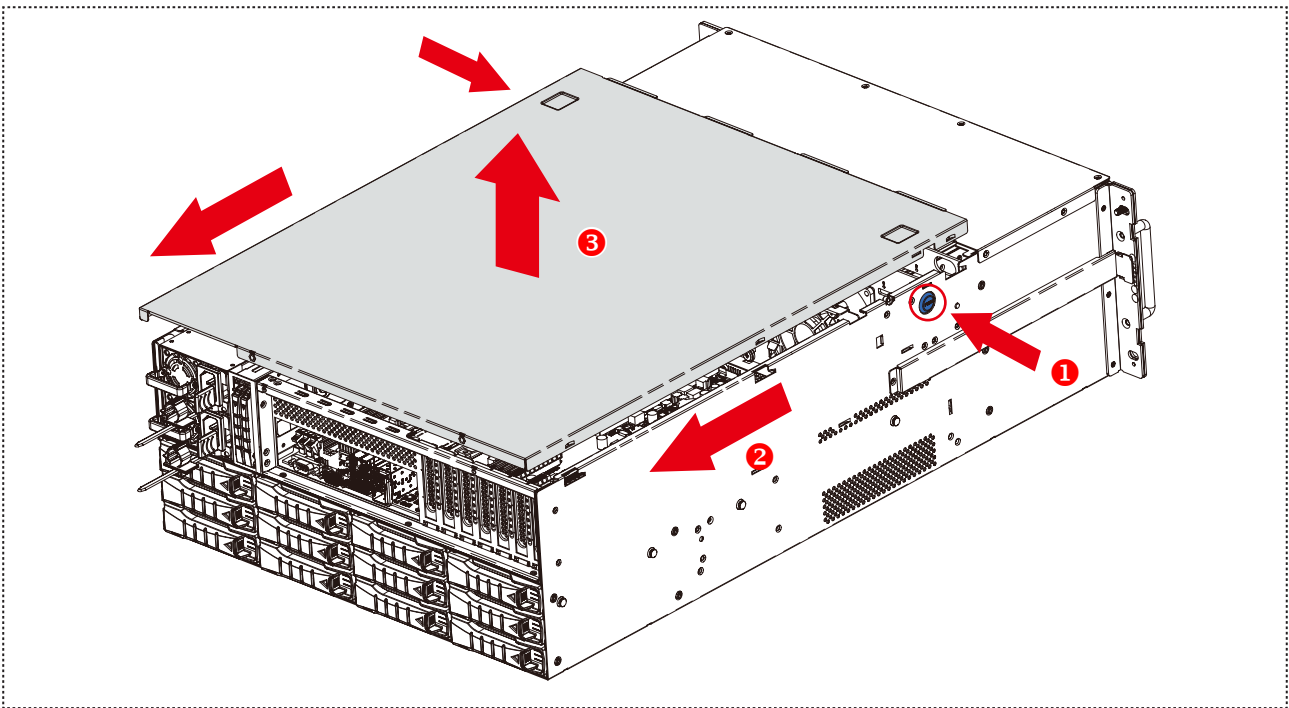


## CAUTION

Every screw has its own corresponding locking position on the enclosure/module. Do not casually exchange the screws to different holes, it may cause unexpected damage.

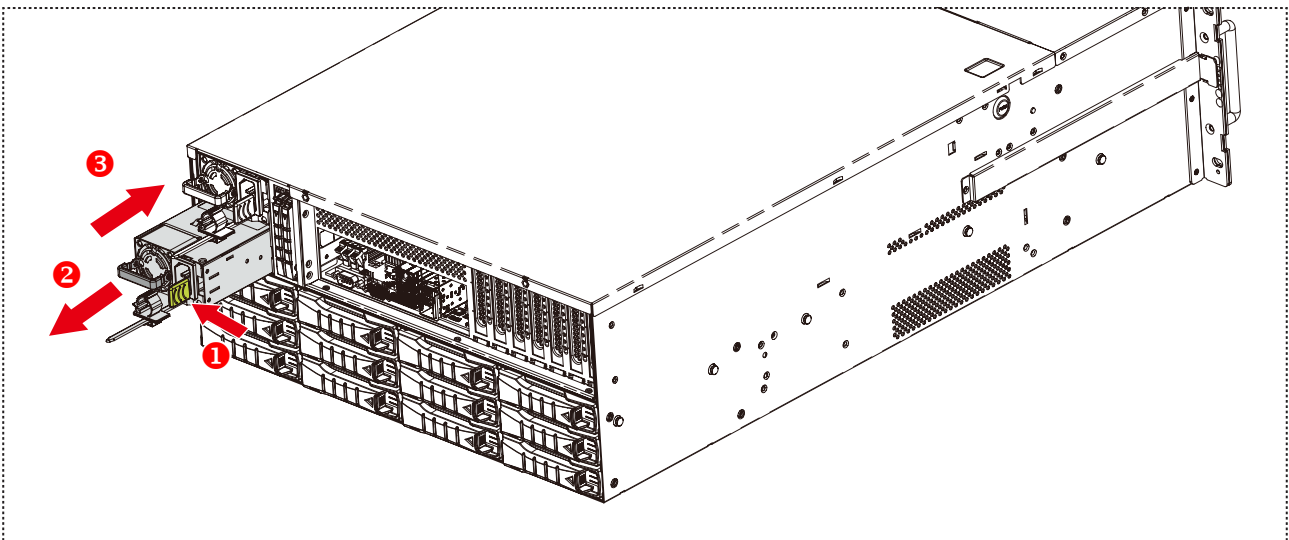
## 2.1 Top Cover

- ① Press the eject button on both sides of the chassis simultaneously to release the cover from the chassis.
- ② Push the cover towards the front panel.
- ③ Lift upward to remove the cover.



## 2.2 Power Supply Unit Module

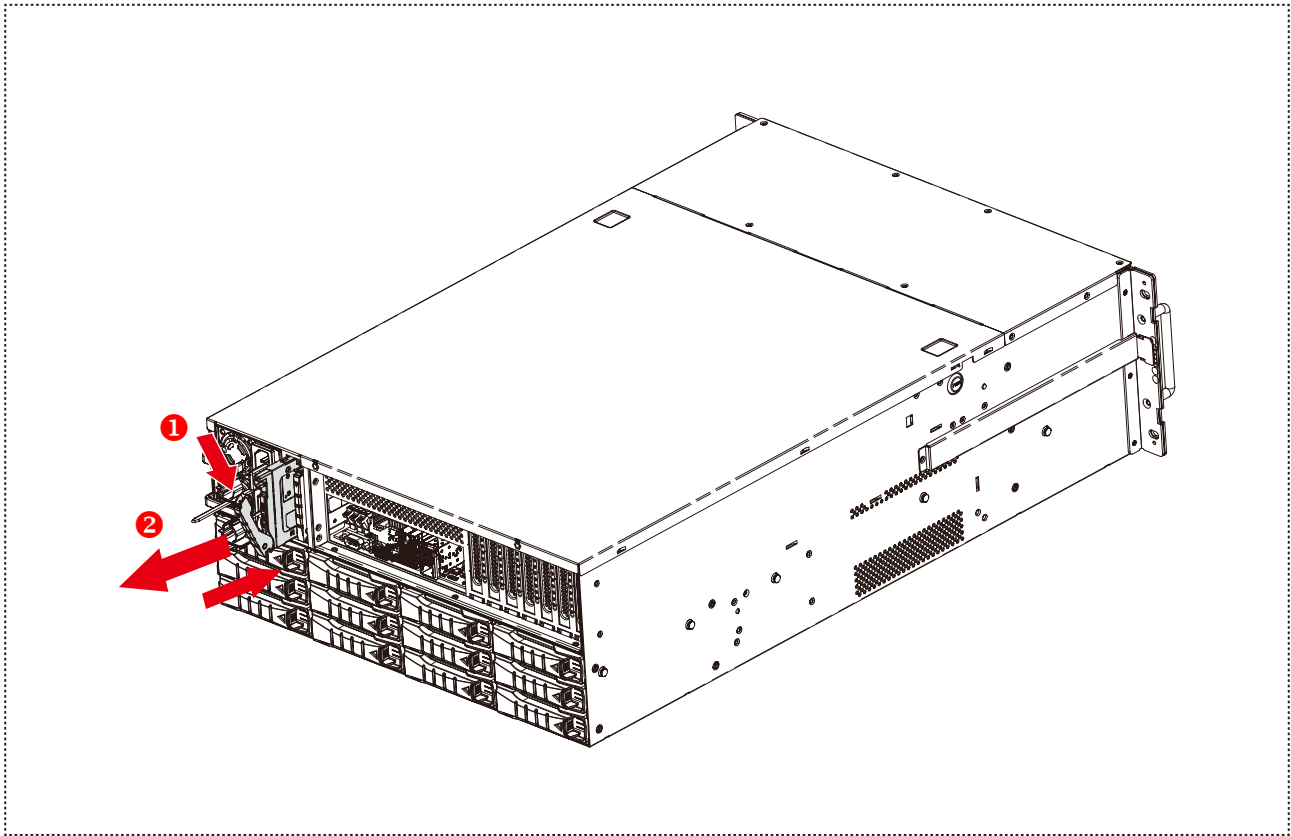
- ① Press the ejector to release the module.
- ② Pull the handle to remove the module out of the chassis.
- ③ Push the replaced power supply unit into the chassis. Ensure that the module is hooked into the cage.



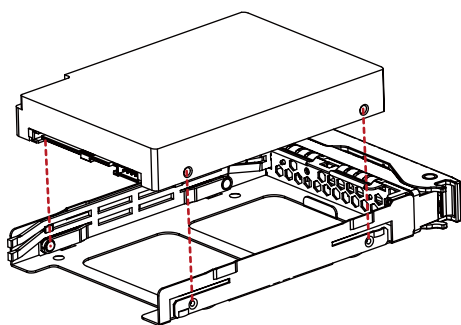
## 2.3 Disk Drive

### 2.3.1 Disk Drive: 2.5-inch

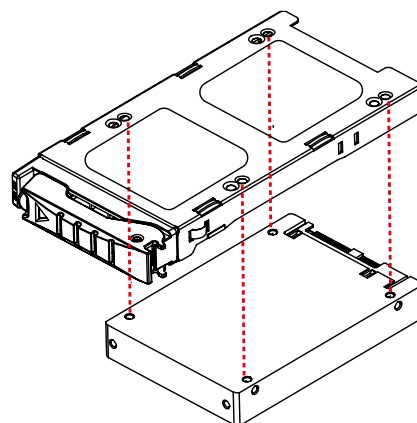
- ① Press the ejector on the tray to release the handle.
- ② Pull the tray handle completely outward.
- ③ Pull the drive tray out of the chassis.



- ④ Insert the disk drive into the tray. Ensure that the dimples on the tray match the disk drive. For additional assurance, fasten the screws \* 4 on the tray to secure the disk drive.



dimple placement

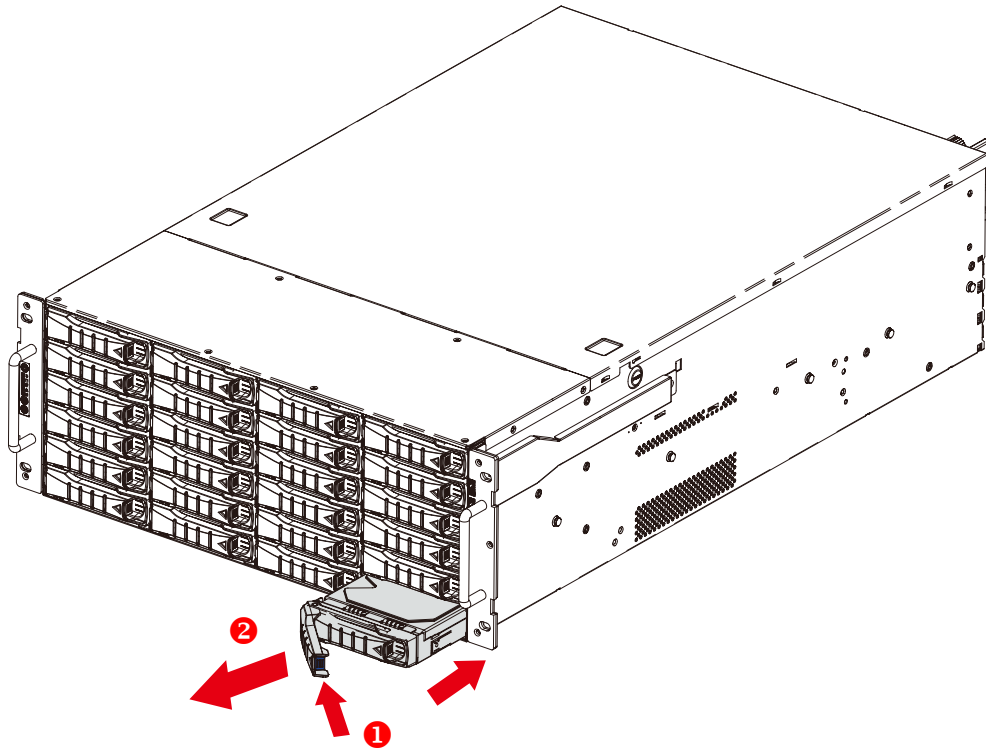


screw placement

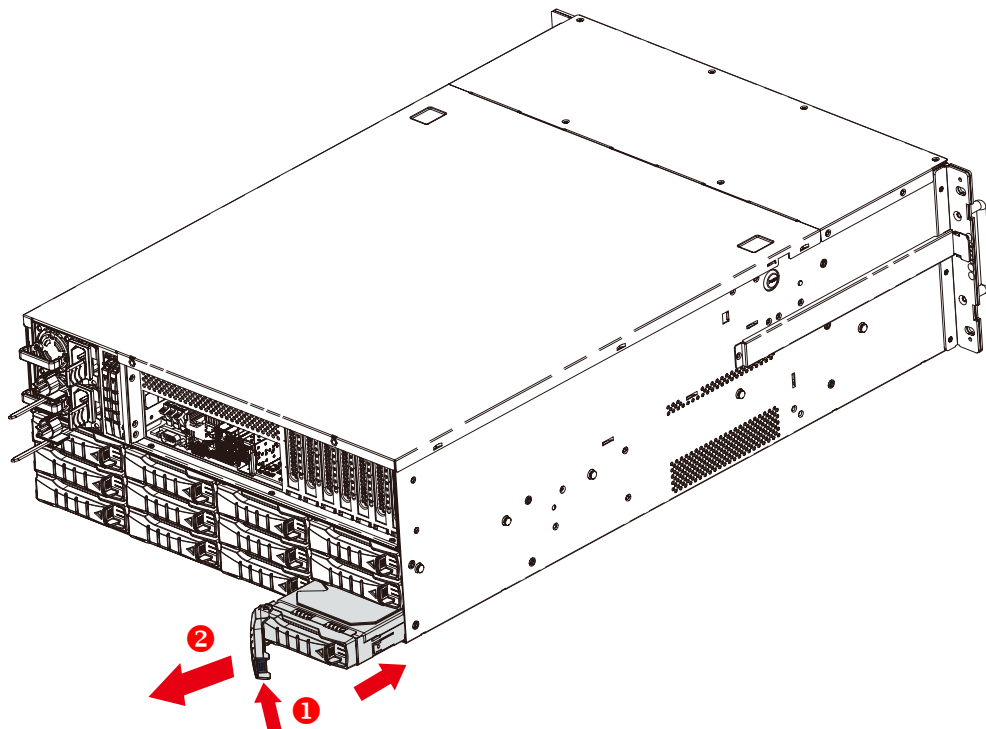
- ⑤ Push the tray with the installed disk drive into the end of the drive slot in the chassis.
- ⑥ Close the tray handle.

### 2.3.2 Disk Drive: 3.5-inch

- ① Press the ejector on the tray to release the handle.
- ② Pull the tray handle completely outward.
- ③ Pull the drive tray out of the chassis.

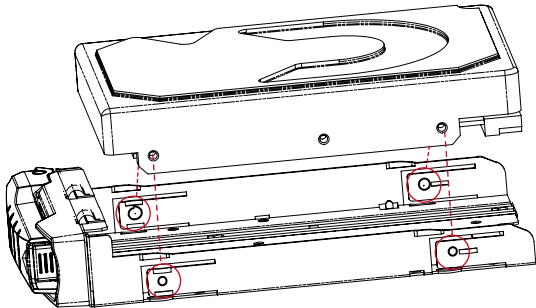


Front

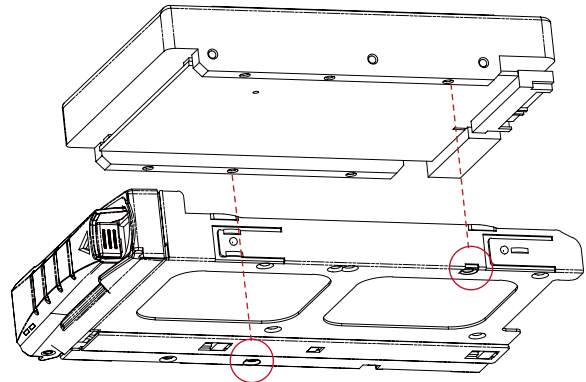


Rear

- ④ Insert the disk drive into the tray. Ensure that the dimples on the tray match the disk drive. For additional assurance, fasten the screws \* 2 on the tray to secure the disk drive.



dimple placement

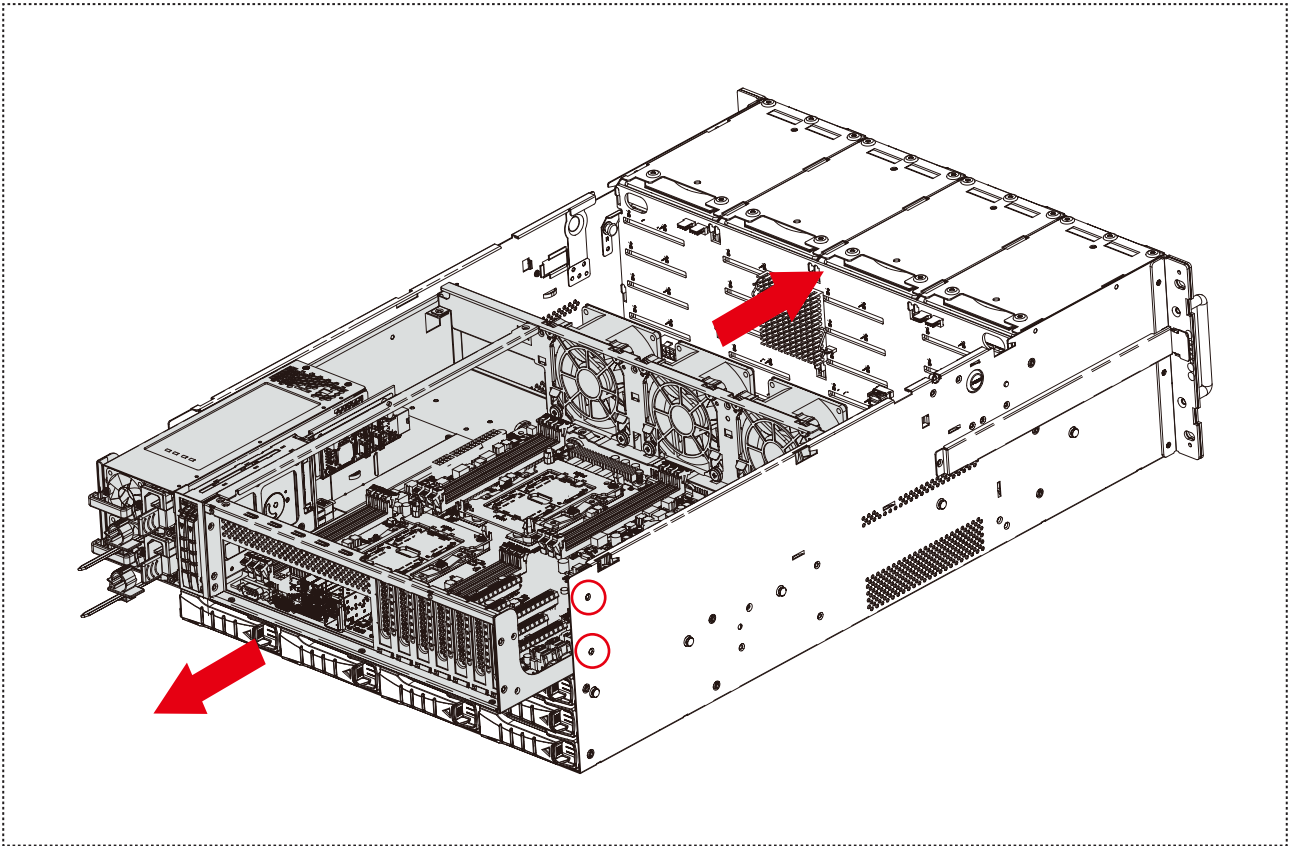


screw placement

- ⑤ Push the tray with the installed disk drive into the end of the drive slot in the chassis.  
⑥ Close the tray handle.

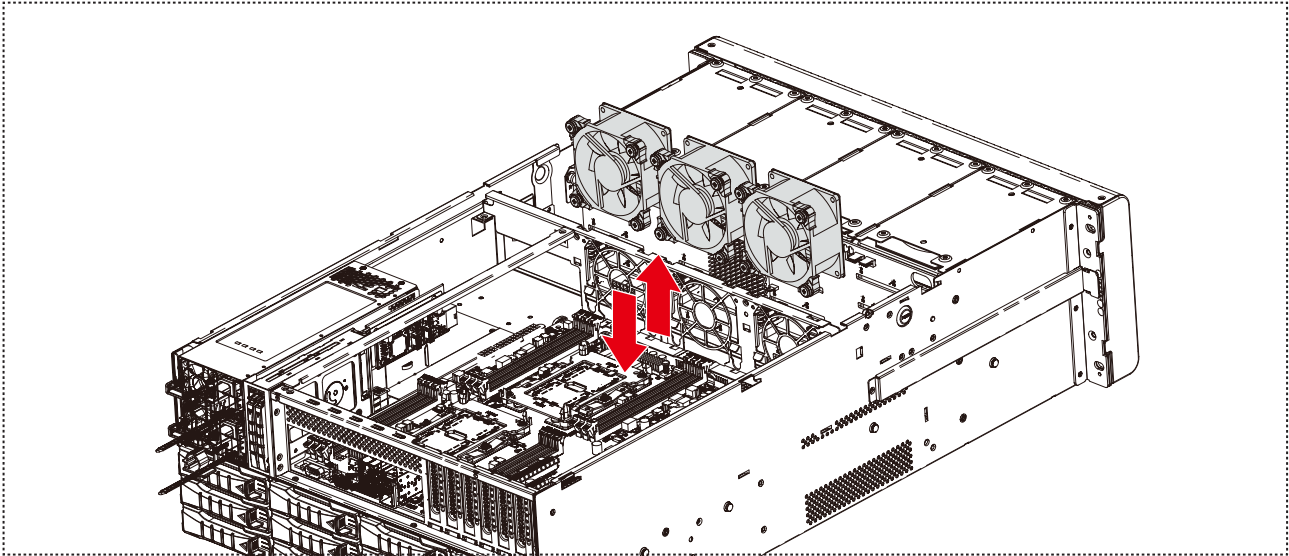
## 2.4 Motherboard

- ① Dislodge the screw x 4 pcs on both sides (x 2 pcs on each side) of the system.
- ② Pull the motherboard tray out of the chassis.

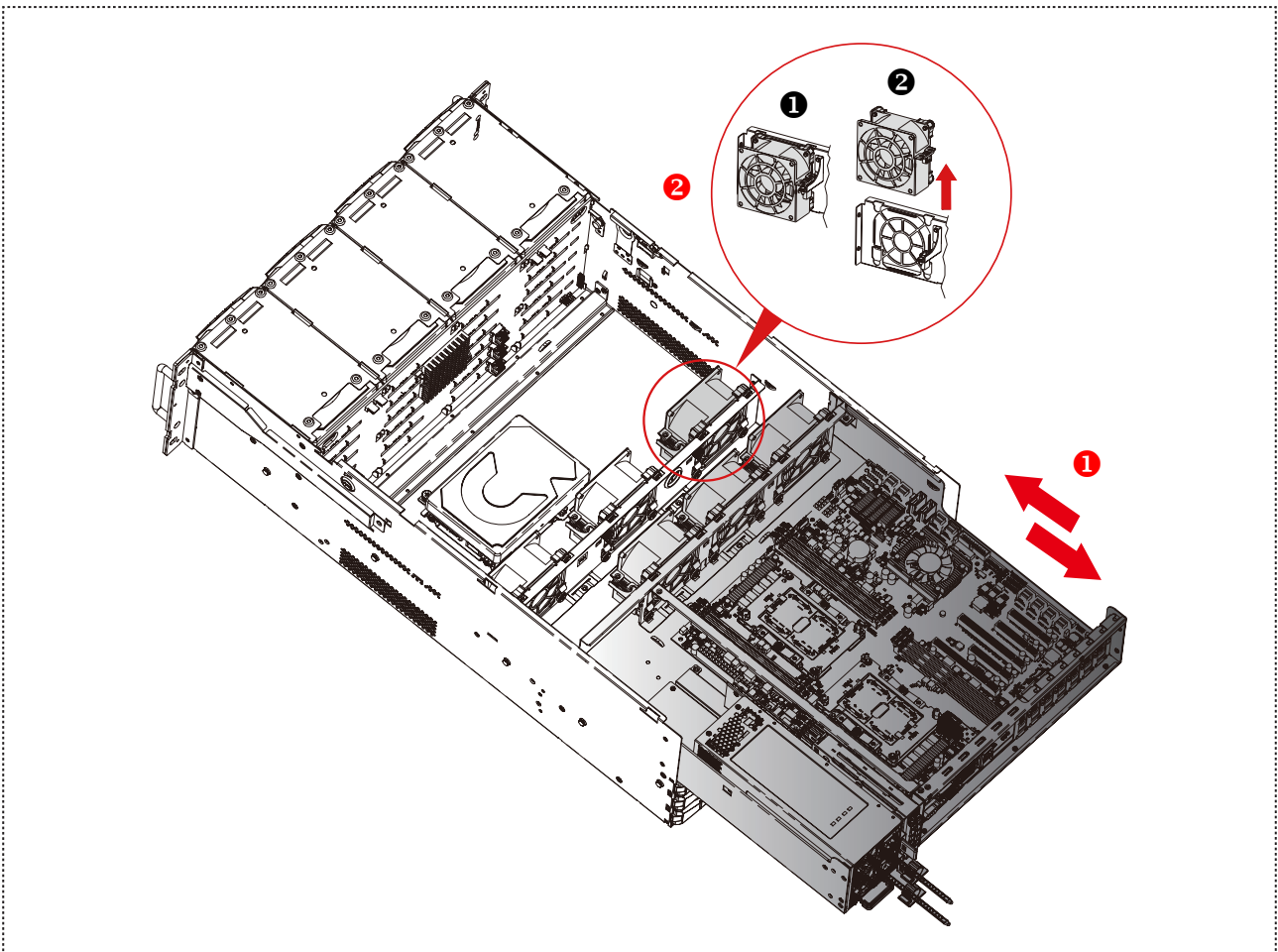


## 2.5 Fan Module

- ① Remove the top cover from the chassis. Please refer to [Section 2.1 Top Cover](#).
- ② Unplug the cables and connectors from the server board.
- ③ Pull the top fan out of the chassis.

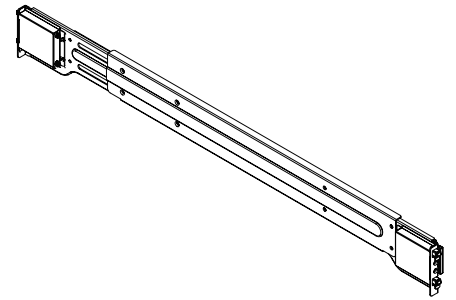


- ④ Remove the Motherboard tray. Please refer to [Section 2.3 Motherboard](#).
- ⑤ Remove the bottom row of the fan by pulling it upward.
- ⑥ Insert the replaced fan into the chassis. Verify the alignment of the rubber connectors of the fan and the bracket. Ensure that the fan is inserted into the correct slot.

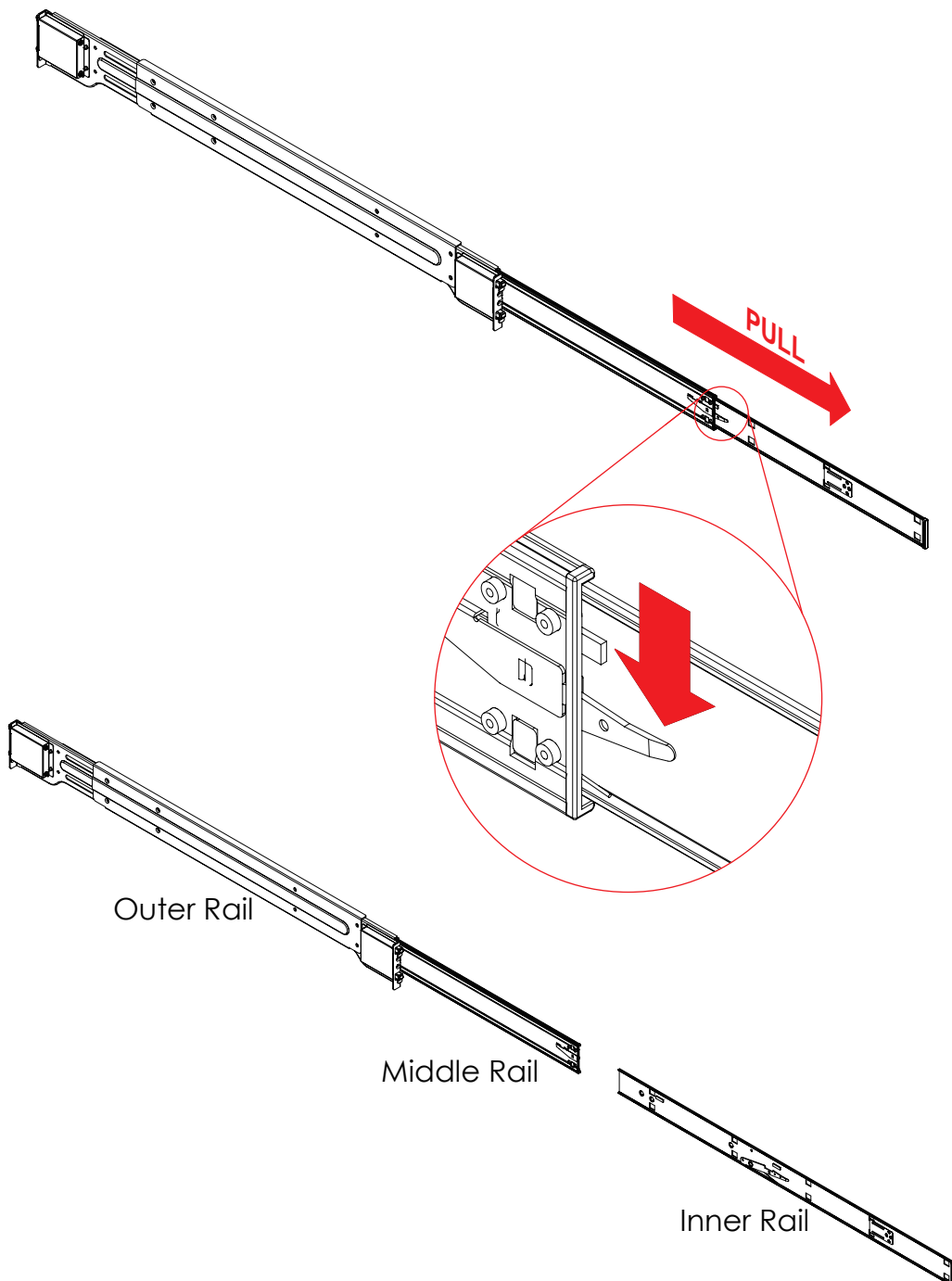


## 2.6 Slide Rail

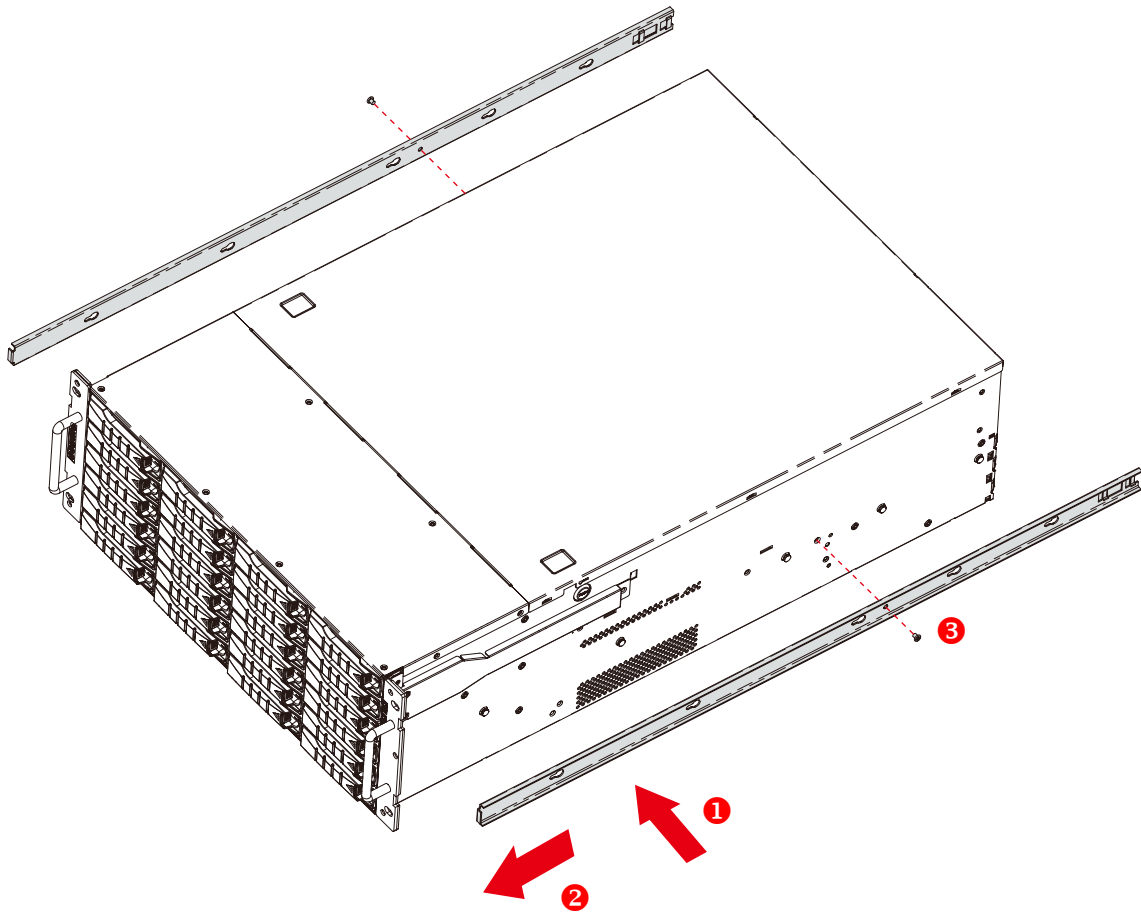
Separate the tool-less slide rail



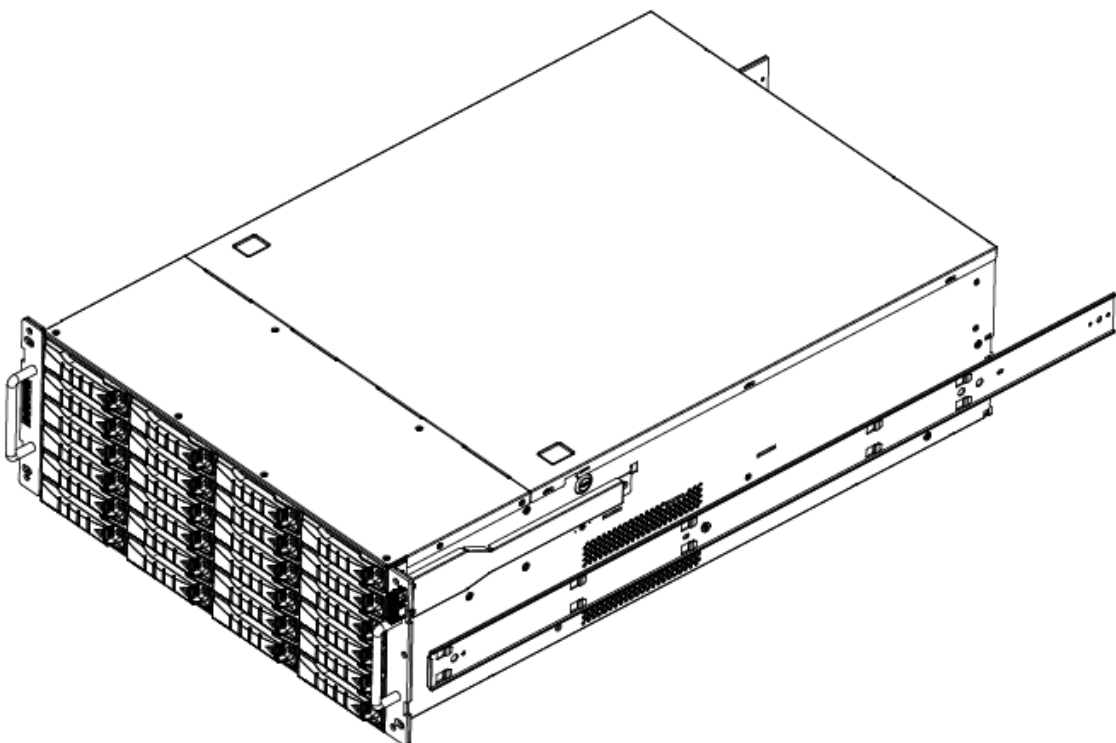
1. Pull the inner rail out of the outer rail until it is fully extended. Press the locking tab down to release the inner rail.



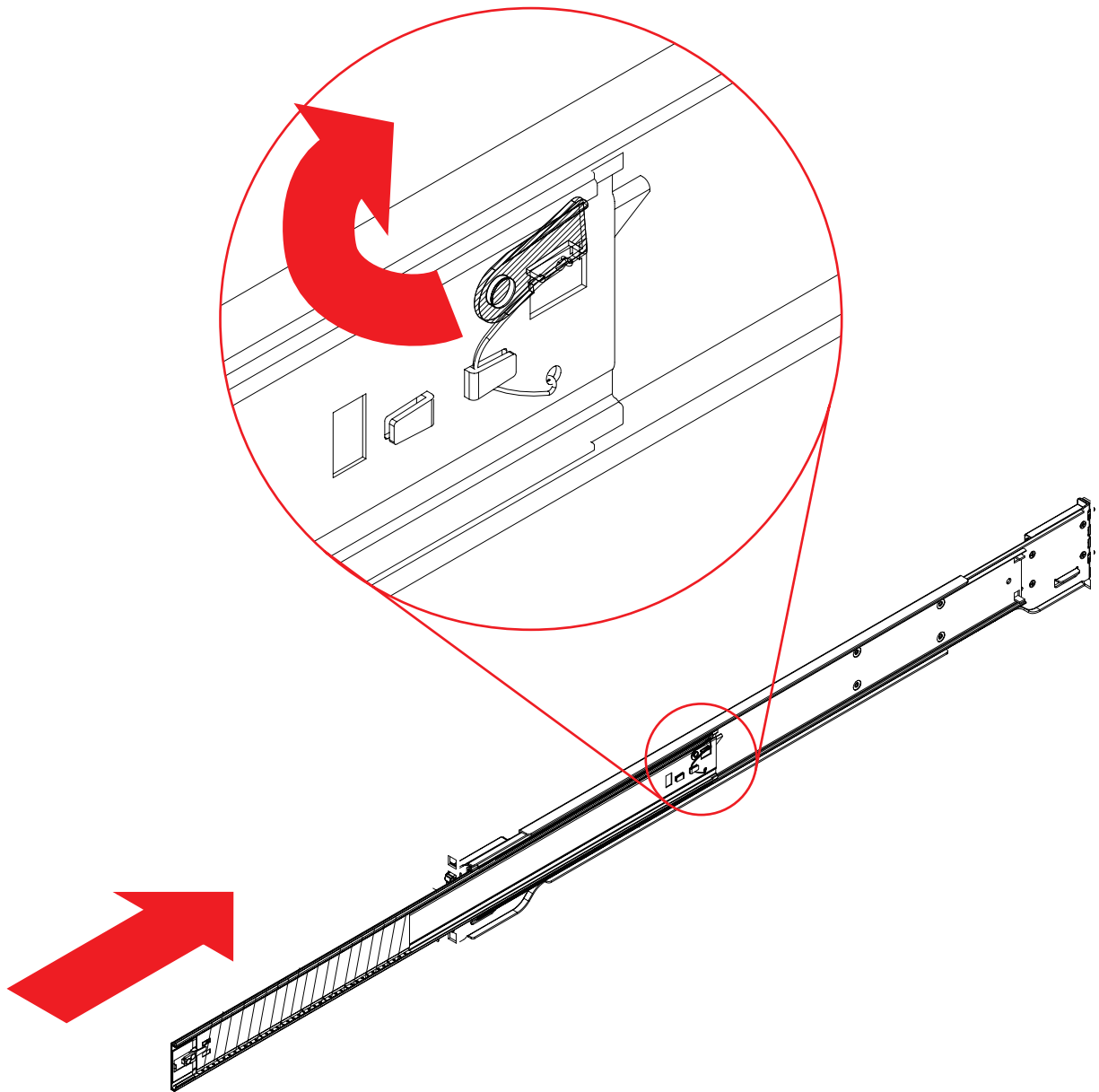
2. Place the inner rail firmly against the side of the chassis. Make sure that the hooks are straight and aligned with the holes in the inner rail.



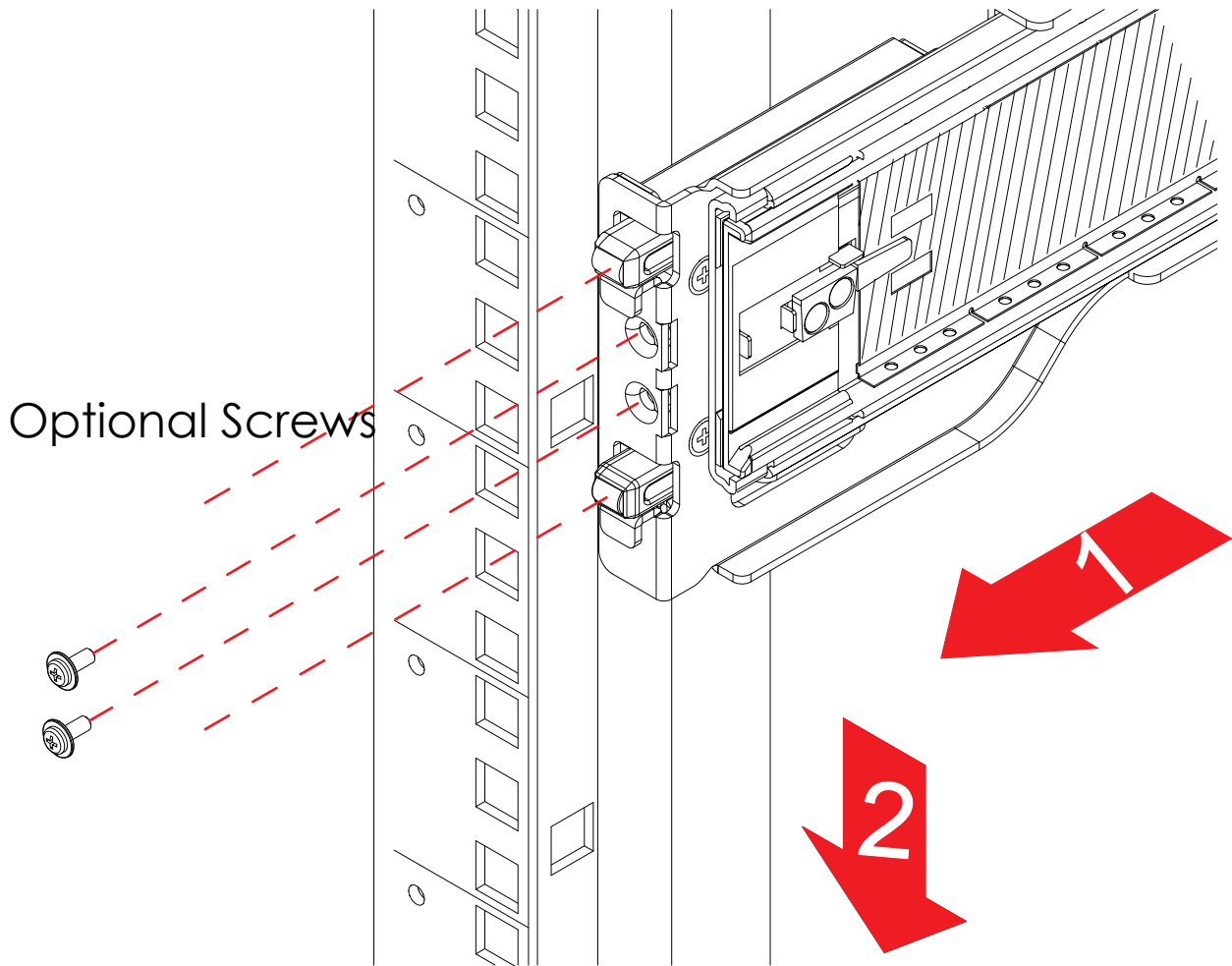
3. Slide the inner rail forward until it clicks into the locked position.



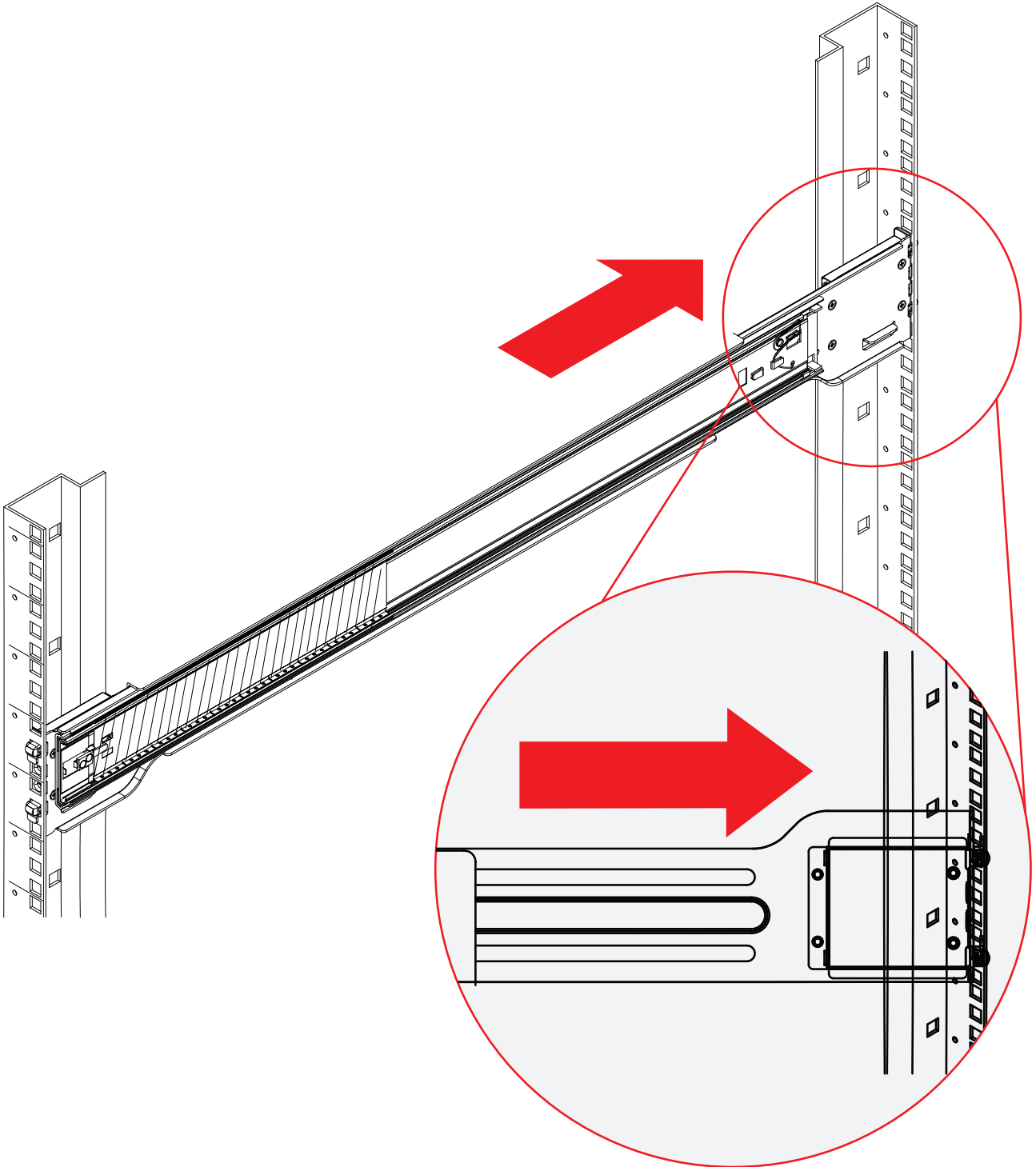
4. Press the locking tab and push the middle rail back into the outer rail.



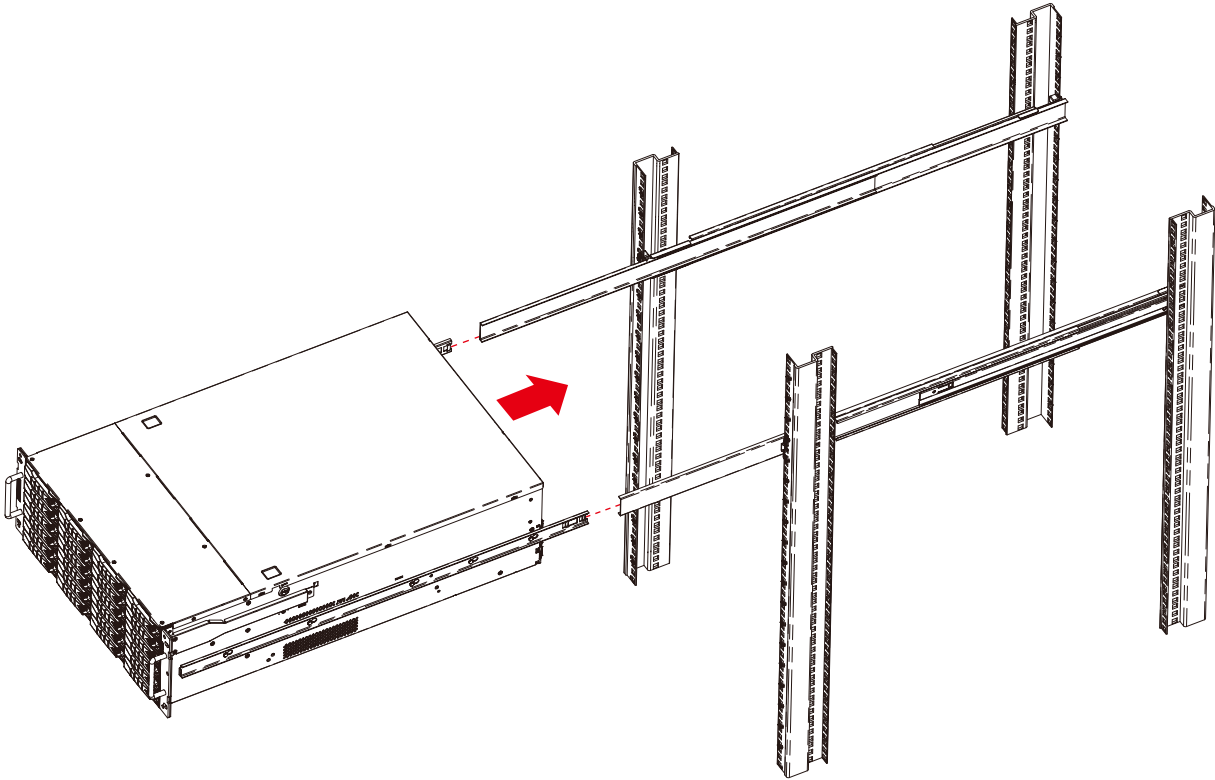
5. Hang the hooks of the rails on the rack holes and if necessary, secure with screws.



6. Repeat step 5 to mount the four ends, extending the rails as necessary.

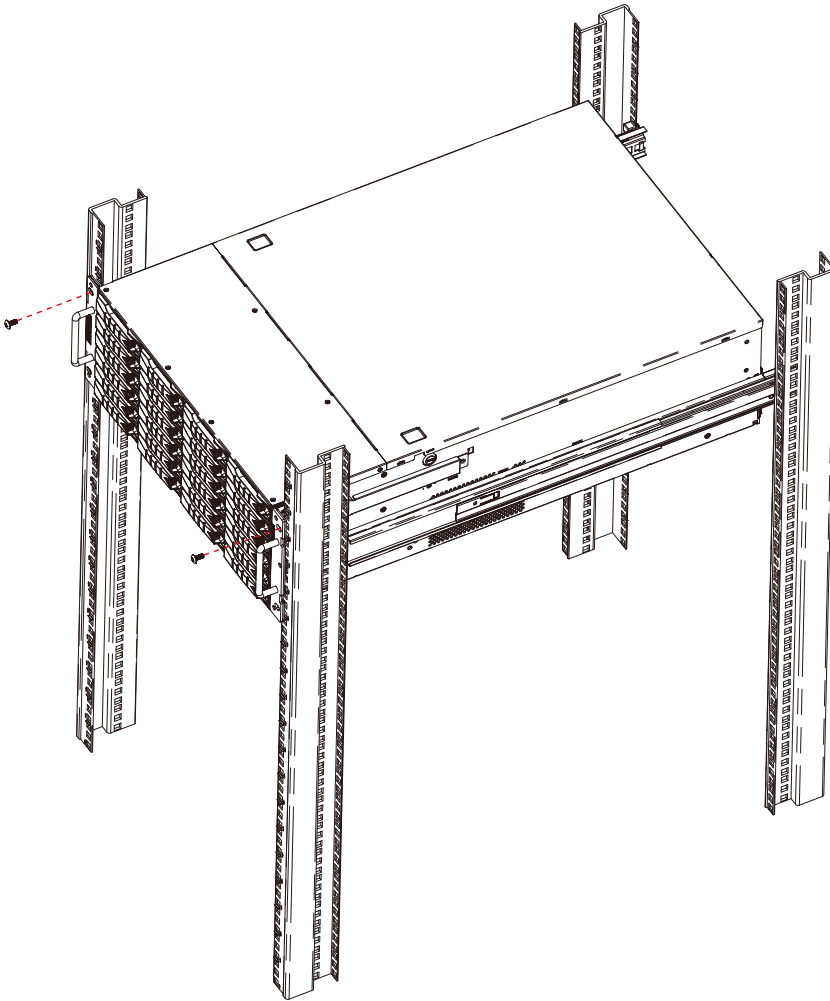


7. Pull the middle rail out of the front of the outer rail and make sure that the ball bearing shuttle is locked at the front of the middle rail.

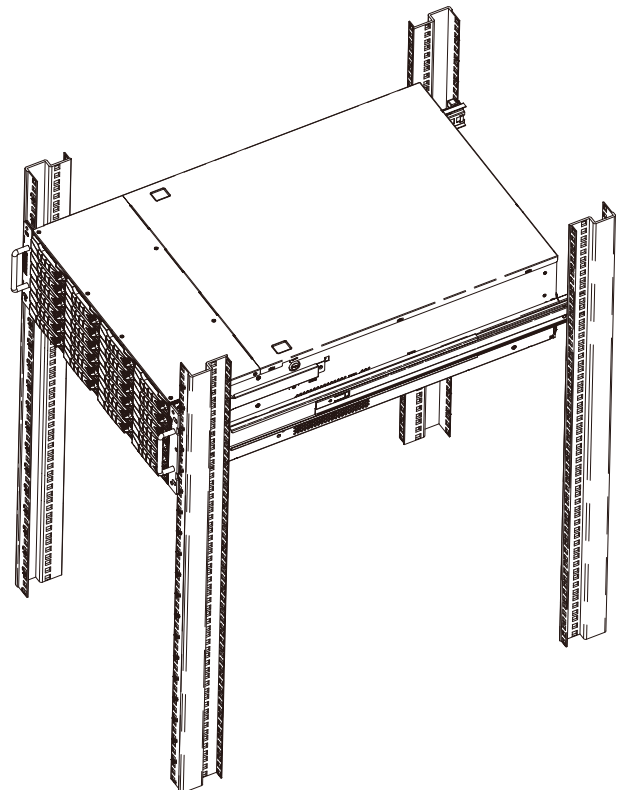


Align the inner rails with the middle rails and then push evenly on both sides of the chassis until it clicks into the fully extended position.

- Depress the locking tabs on both sides of the chassis simultaneously and push the chassis all the way into the rear of the rack.



If additional security is required, secure the chassis handles to the front of the rack with two screws (optional).

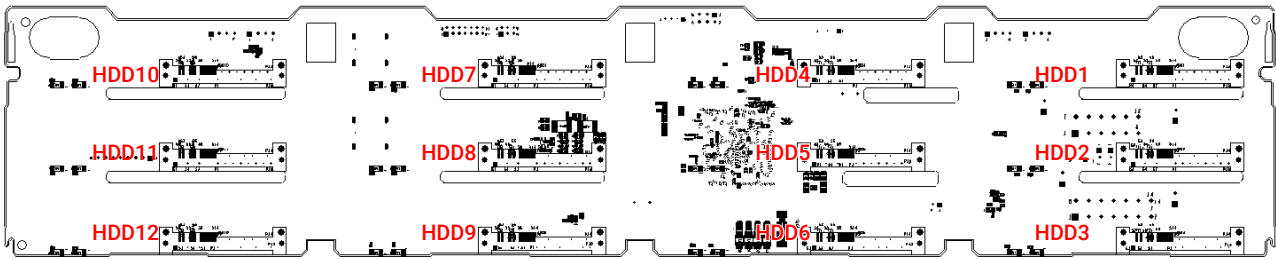


# Chapter 3. Hardware Specification

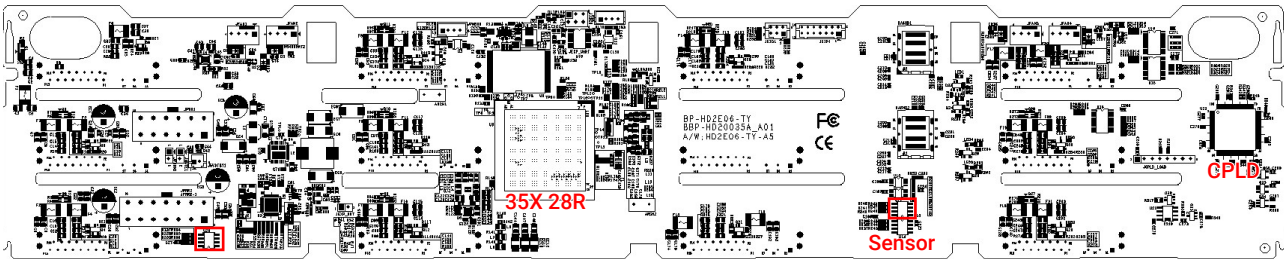
## 3.1 HDD Backplane: 12 Bay

### 3.1.1 Placement

Top view

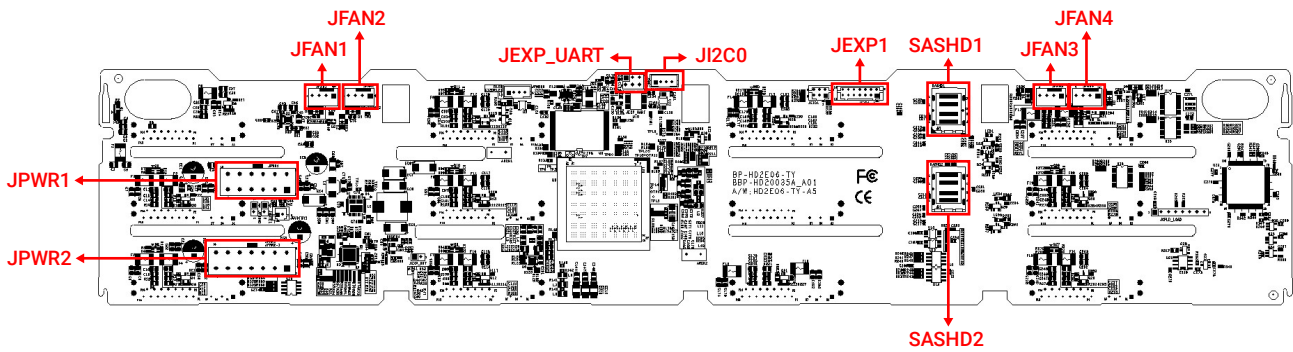


Bottom view



### 3.1.2 Connector Location

Bottom view

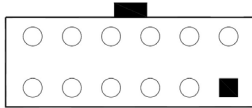


Function	Description	Comments
HDD1-12	SFF-8680 Receptacle	HDD connector

Function	Description	Comments
Power Supply (JPWR1)	6 x 2 Pin Power Connector	12V/5V/3V3 7A per pin
Power Supply (JPWR2)	7 x 2 Pin Power Connector	Addition 12V/5V power 6A per pin
MiniSAS-HD (SASHD1/2)	36 pin Vertical MiniSAS-HD	SAS Host/Up/Down connection
I2C(JI2C0)	4 pin Box Header	Extended Expander I2C bus for OEM feature
FAN (JFAN1/2/3/4)	4 pin Wafer	PWM FAN control
UART (JEXP_UART)	3 x 2 Pin Header	Expander SMART/DEBUG port
JEXP1	2 x 7 pin Box Header	GPIO/I2C Header

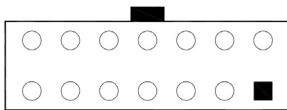
### 3.1.3 Connectors

#### Power Connector (JPWR1)



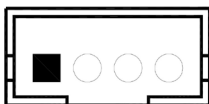
Pin	Description	Pin	Description
7	+12V	1	GND
8	+12V	2	GND
9	+3.3V	3	GND
10	+5V	4	MUTE_L (Not Use)
11	+5VSTBY (Not use)	5	PSU_N1 (Not Use)
12	PS_ON_L (Not Use)	6	GND

#### Power Connector (JPWR2)



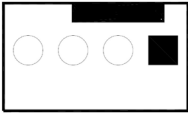
Pin	Description	Pin	Description
8	+12V	1	GND
9	+12V	2	GND
10	+12V	3	GND
11	+12V	4	GND
12	+5V	5	GND
13	+5V	6	GND
14	+5V	7	GND

#### I2C Connector (JI2C0)



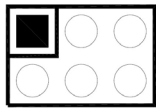
Pin	Description
1	GND
2	I2C_CLOCK
3	I2C_DATA
4	N/A

## FAN Connector (JFAN1, JFAN2, JFAN3, JFAN4)



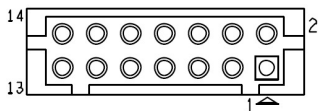
Pin	Description
1	GND
2	+12V
3	TACH
4	PWM

## Console for Expander (JEXP\_UART)



Pin	Description	Pin	Description
2	DEBUG_RXD	1	SMART_RXD
4	GND	3	GND
6	DEBUG_TXD	5	SMART_TXD

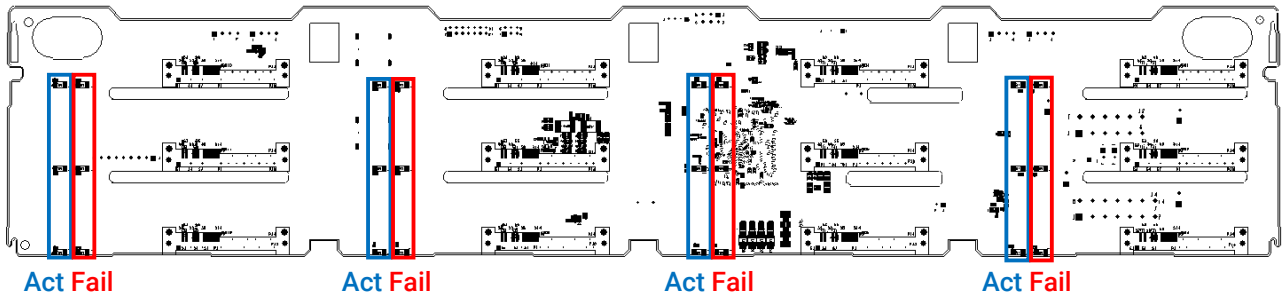
## EXP GPIO/I2C Connector (JEXP1)



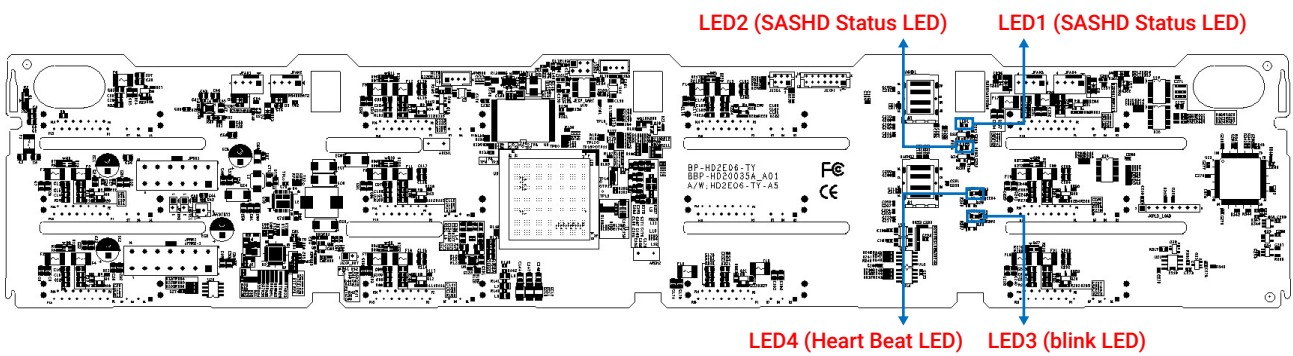
Pin	Description	Pin	Description
2	E2E_SCL	1	E2E_SCL
4	E2E_SDA	3	E2E_SDA
6	GND	5	GND
8	PEER_MATE_N	7	GND
10	GND	9	GND
12	LB_AB0	11	LB_BA0
14	LB_AB1	13	LB_BA1

### 3.1.4 LED Indicator

Top view



Bottom view

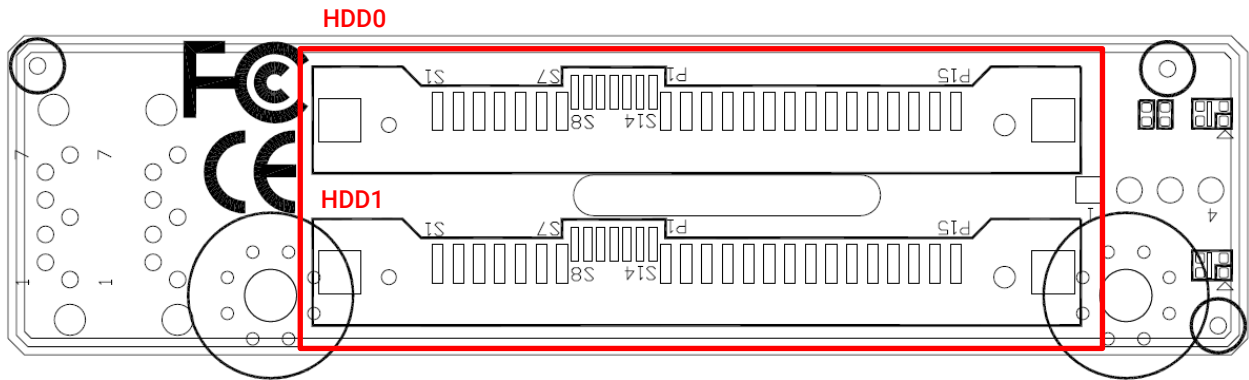


HDD Activity LEDs	Blue (On)	HDD present
	Blue (Blinking)	HDD Activity is detected or has located HDD(slow)
	Off	HDD is not connect or is power off.
HDD Fault/Status LEDs	Off	No control bit is set or set by any of the following bits: 1. RQST OK 2. RQST RSVD DEVICE 3. RQST HOT SPARE 4. RQST ACTIVE 5. DO NOT REMOVE 6. RQST IDENT 7. DEVICE OFF
	Red (Blinking)	Set by any of the following bits: 1. RQST CONS CHECK 2. RQST IN CRIT ARRAY 3. RQST IN FAILED ARRAY 4. RQST REBUILD/REMAP 5. RQST R/R ABORT 6. RQST INSERT 7. RQST REMOVE 8. PRDFAIL
	Red (On)	Set by any of the following bits: 1. RQST MISSING 2. RQST FAULT
SASHD Link Status (LED1, LED2)	Blue (On)	Link is up.
	Blue (Blinking)	Activity is detected
	Off	Link is down.
Expander Blink (LED3)	Blue (Blinking)	Expander is alive, 0.0833Hz (12 seconds per cycle).
Expander Heart Bit (LED4)	Blue (Blinking)	Expander FW is running.

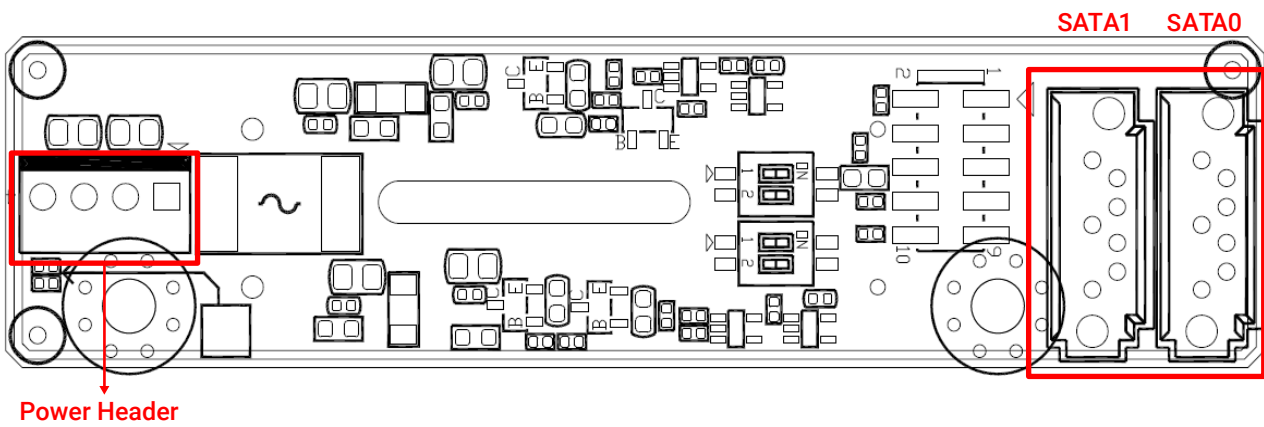
## 3.2 HDD Backplane: 2 Bay

### 3.2.1 Placement

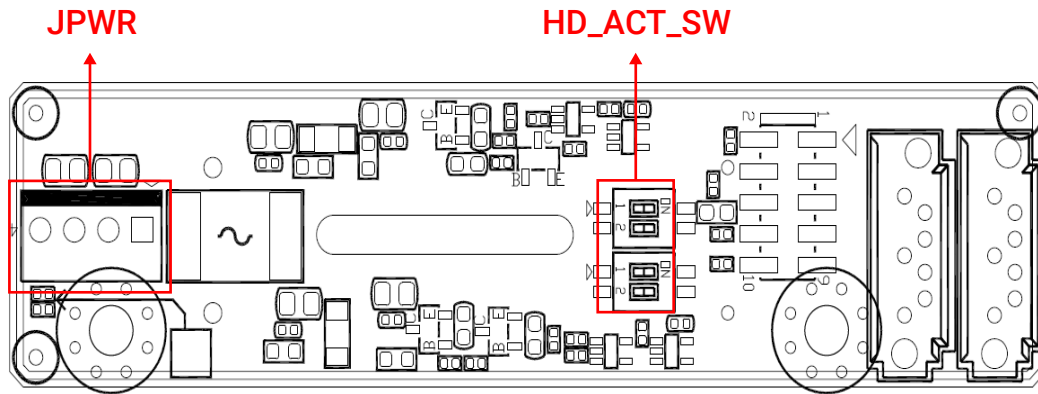
Top view



Bottom view



### 3.2.2 Connector Location



#### I/O Connectors

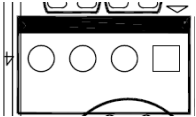
Function	Description	Comments
HDD Connection (HDD0/HDD1)	SFF-8680 Receptacle	For 2.5" HDD Connector
Host Link (SATA0/SATA1)	SATA 7Pin Receptacle	From Host SATA Signal

#### Connector Summary

Function	Description	Comments
BP Power (JPWR)	4 pin header	12V / 5V Power input
Activity selection (HD_ACT_SW0&HD_ACT_SW1)	4 pin dip switch	DAS option
LED I/O Header(JLED_E)	10 pin header	From external LED control

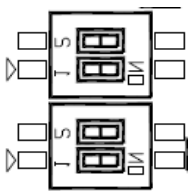
### 3.2.3 Connectors

#### BP Power (JPWR)



Pin	Description
1	+12V
2	GND
3	GND
4	+5V

#### Activity selection (HD\_ACT\_SW0 / HD\_ACT\_SW1)



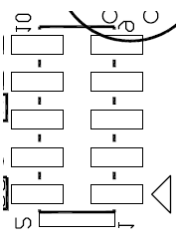
Pin	Description
1	5HZ
2	HDDIN0-
3	SASIN0
4	

Open: Standard

1 On: And 5Hz on DAS, for SSD320.

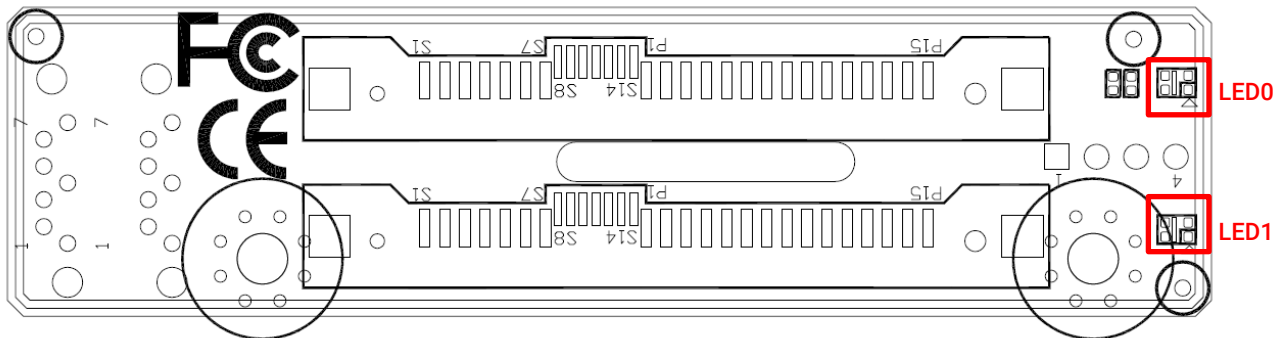
2 On: Invert DAS, for SSD520.

#### LED I/O Header(JLED\_E)



Pin	Description	Pin	Description
1	ERR0-	2	ERR0- (220R)
3	ALED0-	4	ALED0- (220R)
5	GND	6	+5V
7	ALED1-	8	ALED1- (220R)
9	ERR1-	10	ERR1- (220R)

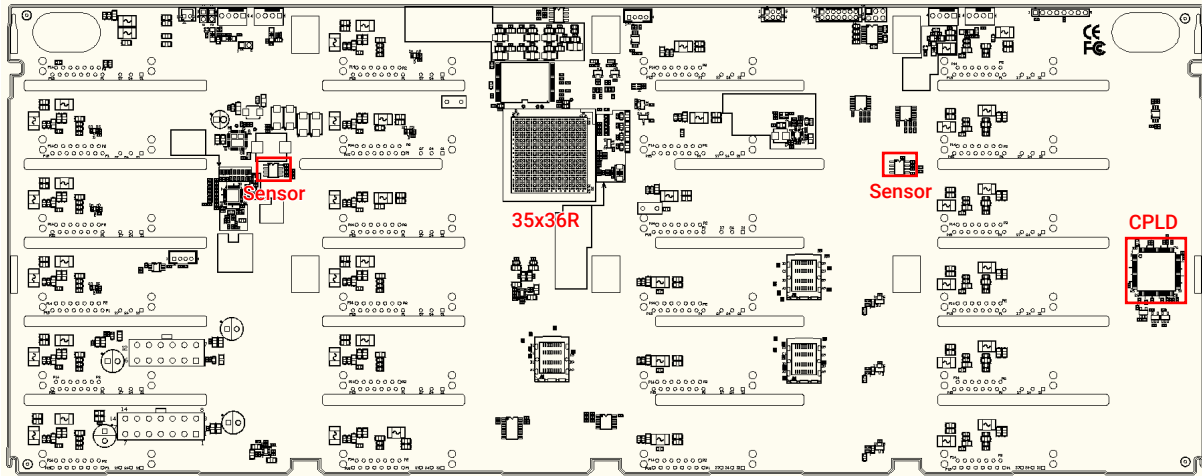
### 3.2.4 LED Indicator



SATA HD Link Status (LED0, LED1)	Blue (On)	Link is up.
	Blue (Blinking)	Activity is detected
	Blue (Off)	Link is down.
	Red (On)	HDD error ( external control only)
	Red (Off)	HDD Normal

## 3.3 HDD Backplane: 24 Bay

### 3.3.1 Placement



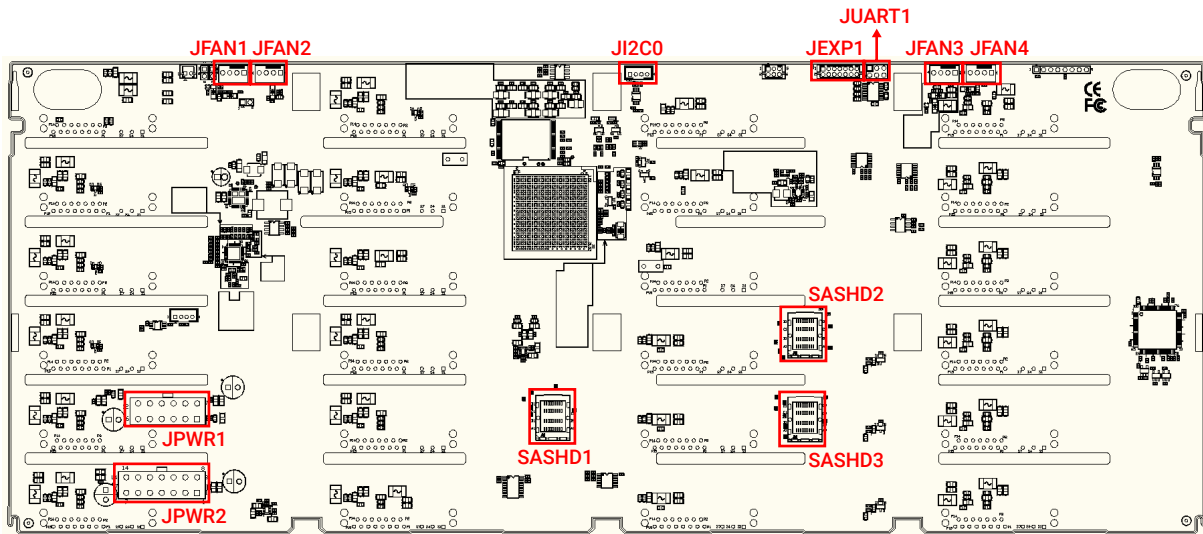
#### External Connectors

Function	Description	Comments
HDD1-24	SFF-8680 Receptacle	HDD connector

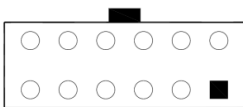
#### Internal connectors Summary

Function	Description	Comments
Power Supply (JPWR1)	6 x 2 Pin Power Connector	12V/5V/3V3 7A per pin.
Power Supply (JPWR2)	7 x 2 Pin Power Connector	Addition 12V/5V power 6A per pin.
MiniSAS-HD (SASHD1/2/3)	3 x 2 pin Header	SAS Host/Up/Down connection
I2C(JI2C0)	2 x 7 pin Box Header	Extended Expander I2C bus for OEM feature.
FAN (JFAN1/2/3/4)	1 x 8 pin Header(Pitch2.54)	PWM FAN control.
UART (JUART1)	Vertical SlimSAS8i Connector	Expander SMART/DEBUG port.

### 3.3.2 Connector Location

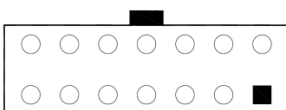


Power Connector (JPWR1)



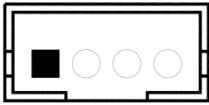
Pin	Description	Pin	Description
7	+12V	1	GND
8	+12V	2	GND
9	+3.3V	3	GND
10	+5V	4	MUTE_L (Not Use)
11	+5VSTBY (Not use)	5	PSU_N1 (Not Use)
12	PS_ON_L (Not Use)	6	GND

Power Connector (JPWR1)



Pin	Description	Pin	Description
8	+12V	1	GND
9	+12V	2	GND
10	+12V	3	GND
11	+12V	4	GND
12	+5V	5	GND
13	+5V	6	GND
14	+5V	7	GND

I2C Connector (JI2C0)



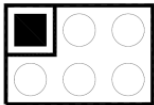
Pin	Description
1	GND
2	I2C_CLOCK
3	I2C_DATA
4	N/A

FAN Connector (JFAN1, JFAN2, JFAN3, JFAN4)



Pin	Description
1	GND
2	+12V
3	TACH
4	PWM

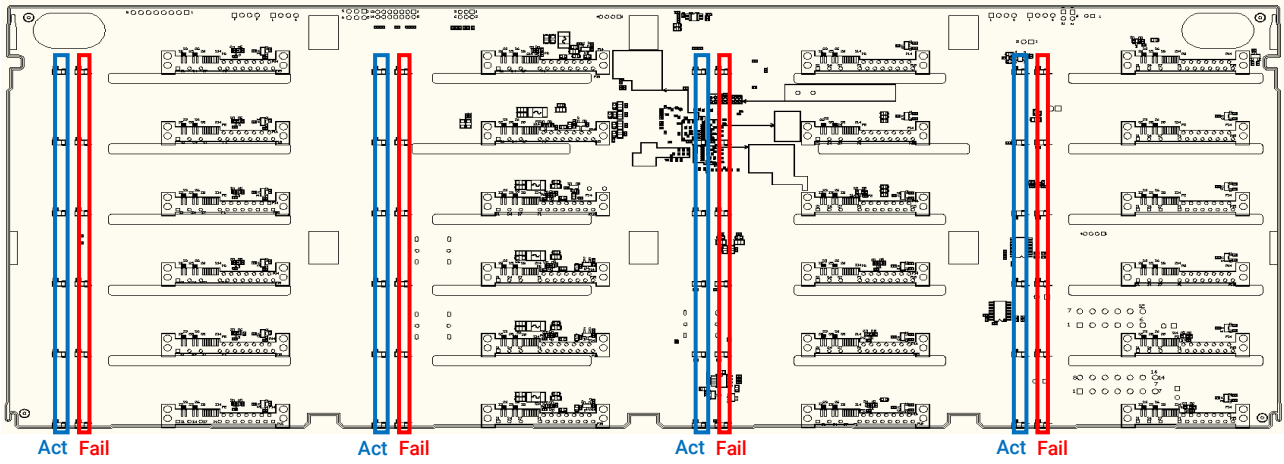
Console for Expander (JUART1)



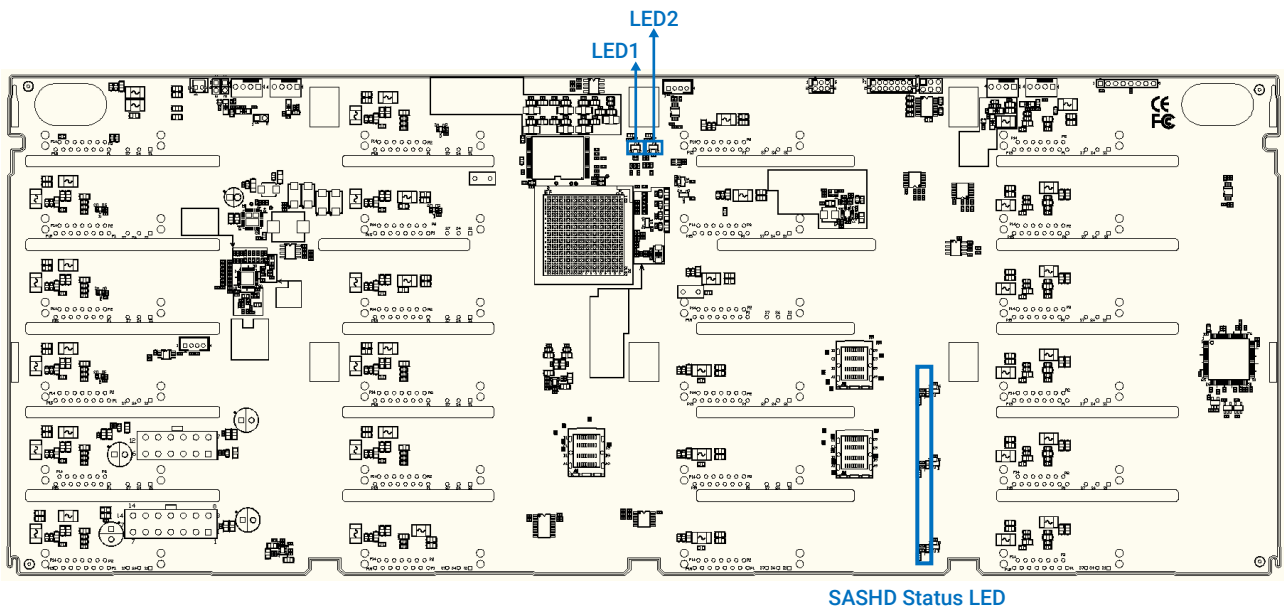
Pin	Description	Pin	Description
2	DEBUG_RXD	1	SMART_RXD
4	GND	3	GND
6	DEBUG_TXD	5	SMART_TXD

### 3.3.3 LED Indicator

Top view



Bottom view



HDD Activity LEDs	Blue (On)	HDD present
	Blue (Blinking)	HDD Activity is detected or has locate HDD(slow).
	Off	HDD is not connected or is power off.
HDD Fault/Status LEDs	Off	No control bit is set or set by any of the following bits: 1. RQST OK 2. RQST RSVD DEVICE 3. RQST HOT SPARE 4. RQST ACTIVE 5. DO NOT REMOVE 6. RQST IDENT 7. DEVICE OFF
	Red (Blinking)	Set by any of the following bits: 1. RQST CONS CHECK 2. RQST IN CRIT ARRAY 3. RQST IN FAILED ARRAY 4. RQST REBUILD/REMAP 5. RQST R/R ABORT 6. RQST INSERT 7. RQST REMOVE 8. PRDFAIL
	Red (On)	Set by any of the following bits: 1. RQST MISSING 2. RQST FAULT
SAS HD Link Status	Blue (On)	Link is up.
	Blue (Blinking)	Activity is detected.
	Off	Link is down.
Expander Blink (LED2)	Blue (Blinking)	Expander is alive, 0.0833Hz (12 seconds per cycle).
Expander Heart Bit (LED1)	Blue (Blinking)	Expander FW is running.

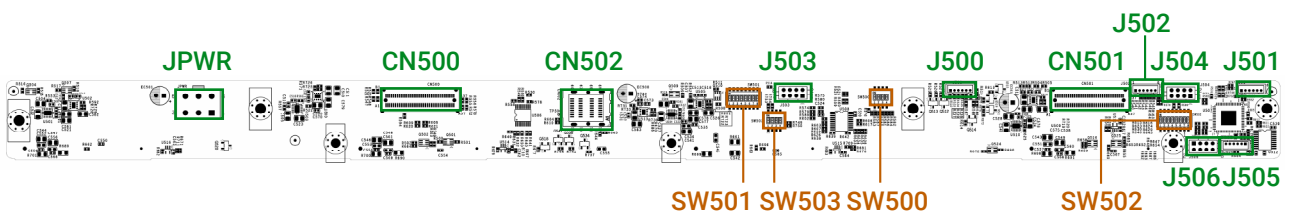
## 3.4 Drive Backplane: 4 Bay

### 3.4.1 Placement

Top view



Bottom view



### 3.4.2 Connector

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

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 (J500)

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

---

## UBM Connector (J501)

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

---

## UBM Connector (J502)

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

---

## UBM Connector (J505)

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

---

## SSGPIO / UBM0 / BMC I2C Connector (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 (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 (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

### 3.4.3 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] HBA1 UBM2 NVMe [4:7]

## Vendor ID Configuration (SW502)

VENDOR_ID1 (LD7) SW8-9	VENDOR_ID0 (LD6) 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)

## SGPIO &amp; BMC address Configuration (SW500)

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 &amp; UBM Mode Configuration (SW503)

CPRSNT_N0_N2_EN SW3-6	Configuration
OFF	VPP Only
ON	UBM Only

Intel Standard **VPP0** NVME [0:3] Configuration

- (1) INTEL VPP0 Address 0x4C / 0x4E
- (2) MG9100 SMB Address 0xC4
- (3) Support 8 Drives with dual SGPIO
- (4) Each starts with no drive offset
- (5) Each Channel support 4 drives
- (6) PCH or RAID Controller

## SW500 (VCONF &amp; ADDRESS: 0xC4)

8	7	6	5
	ON	ON	ON
OFF			
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

## SW502 (MODE &amp; ADDRESS: 0x4C /0x4E)

16	15	14	13	12	11	10	9
ON	ON	ON	ON	ON	ON	ON	ON
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS: 0xE2)

8	7	6	5
ON			
	OFF	OFF	OFF
1	2	3	4

## Intel Standard VPP1 NVME [0:3] Configuration

- (1) INTEL VPP1 Address 0x48 / 0x4A
- (2) MG9100 SMB Address 0xC2
- (3) Support 8 Drives with dual SGPIO
- (4) Each starts with no drive offset
- (5) Each Channel support 4 drives
- (6) PCH or RAID Controller

## SW500 (VCONF &amp; ADDRESS: 0xC2)

8	7	6	5
ON		ON	ON
	OFF		
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

## SW502 (MODE &amp; ADDRESS: 0x48 / 0x4A)

16	15	14	13	12	11	10	9
ON		ON		ON	ON	ON	ON
	OFF		OFF				
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS: 0xE4)

8	7	6	5
	ON		
OFF		OFF	OFF
1	2	3	4

## Intel Alternate VPP NVME [0:3] Configuration

- (1) INTEL VPP0 Address 0x40 [0:1]
- (2) INTEL VPP1 Address 0x42 [2:3]
- (3) MG9100 SMB Address 0xC0
- (4) Support 8 Drives with dual SGPIO
- (5) Each starts with no drive offset
- (6) Each Channel support 4 drives
- (7) PCH or RAID Controller

## SW500 (VCONF6)

8	7	6	5
		ON	ON
OFF	OFF		
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

## SW502 (MODE &amp; ADDRESS)

16	15	14	13	12	11	10	9
	ON	ON	ON		ON	ON	ON
OFF				OFF			
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS)

8	7	6	5
OFF	OFF	OFF	OFF
1	2	3	4

## AMD/Microsemi SHP NVME [0:3] Configuration

- (1) AMD/Microsemi SHP0 Address 0x50 / 0x52
- (2) AMD/Microsemi SHP1 Address 0x50 / 0x52
- (3) MG9100 SMB Address 0xC0
- (4) Support 8 Drives with dual SGPIO
- (5) Each starts with no drive offset
- (6) Each Channel support 4 drives
- (7) PCH or RAID Controller

## SW500 (VCONF)

8	7	6	5
		ON	ON
OFF	OFF		
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

## SW502 (MODE &amp; ADDRESS)

16	15	14	13	12	11	10	9
							ON
OFF	OFF	OFF	OFF	OFF	OFF	OFF	
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS)

8	7	6	5
OFF	OFF	OFF	OFF
1	2	3	4

## UBM [0:3] Configuration

**(1) MG9100 SMB Address 0xC0**

## SW500 (VCONF)

8	7	6	5
		ON	ON
OFF	OFF		
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

## SW502 (MODE &amp; ADDRESS)

16	15	14	13	12	11	10	9
ON			ON				
	OFF	OFF		OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS)

8	7	6	5
		ON	
OFF	OFF		OFF
1	2	3	4

## AVAGO SHP [0:3] Configuration

- (1) AVAGO SHP0 Address 0x40 / 0x42 / 0x44 / 0x46
- (2) AVAGO SHP1 Address 0x48 / 0x4A / 0x4C / 0x4E
- (3) MG9100 SMB Address 0xC0
- (4) Support 8 Drives with dual SGPIO
- (5) Each starts with no drive offset
- (6) Each Channel support 4 drives
- (7) PCH or RAID Controller

## SW500 (VCONF)

8	7	6	5
		ON	ON
OFF	OFF		
1	2	3	4

## SW501 (I2C MUX)

16	15	14	13	12	11	10	9
			ON		ON		
OFF	OFF	OFF		OFF		OFF	OFF
1	2	3	4	5	6	7	8

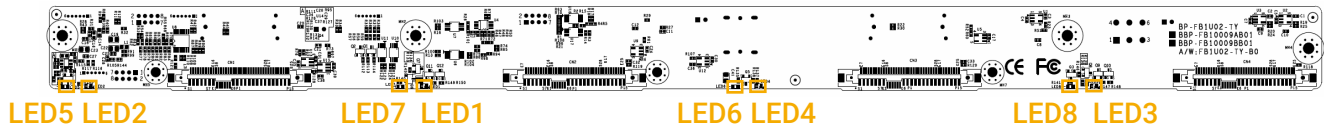
## SW502 (MODE &amp; ADDRESS)

16	15	14	13	12	11	10	9
				ON	ON	ON	
OFF	OFF	OFF	OFF				OFF
1	2	3	4	5	6	7	8

## SW503 (I2C MUX ADDRESS)

8	7	6	5
OFF	OFF	OFF	OFF
1	2	3	4

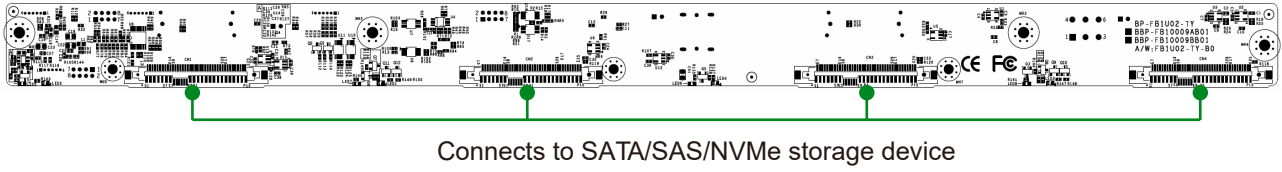
### 3.4.4 LED Indicator



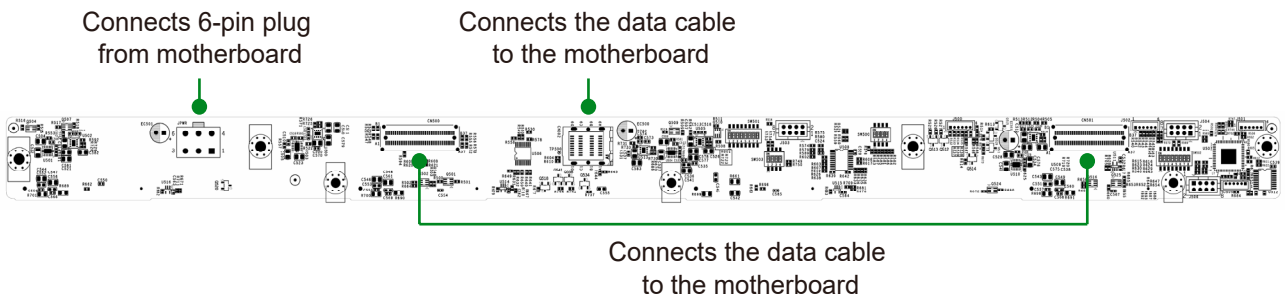
Indicator	Color	Behavior
LED5	Blue (Blinking)	CN1 SSD activity.
	Off	CN1 SSD activity not detected.
LED2	Red	CN1 SSD fault.
	Green	CN1 SSD local.
LED7	Blue (Blinking)	CN2 SSD activity.
	Off	CN2 SSD activity not detected.
LED1	Red	CN2 SSD fault.
	Green	CN2 SSD local.
LED6	Blue (Blinking)	CN3 SSD activity.
	Off	CN3 SSD activity not detected.
LED4	Red	CN3 SSD fault.
	Green	CN3 SSD local.
LED8	Blue (Blinking)	CN4 SSD activity.
	Off	CN4 SSD activity not detected.
LED3	Red	CN4 SSD fault.
	Green	CN4 SSD local.

### 3.4.5 Cable connection

Top view



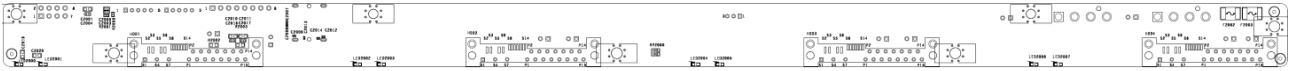
Bottom view



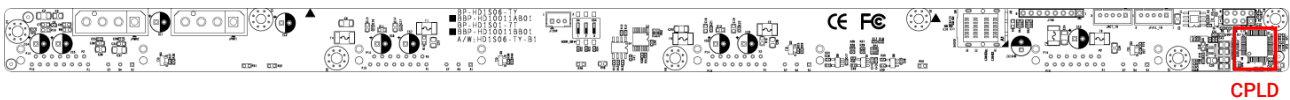
## 3.5 HDD Backplane: 4 Bay

### 3.5.1 Placement

Top view



Bottom view



CPLD

#### External Connectors

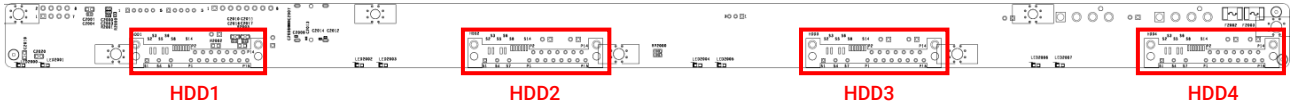
Function	Description	Comments
HDD1-4	SFF-8680 Receptacle	SAS,SATA HDD connector

#### Internal connectors Summary

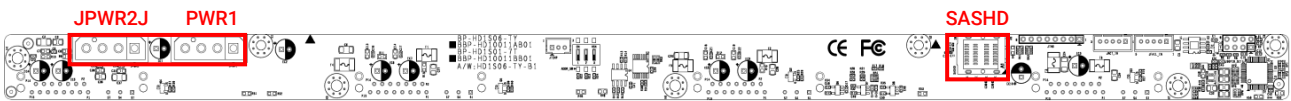
Function	Description	Comments
Power Supply (JPWR1, JPWR2)	1 x 4 Pin Power Connector	12V/5V power. 5A per pin.
MiniSAS-HD (SASHD)	36 pin Vertical MiniSAS-HD	SAS connection

### 3.5.2 Connector Location

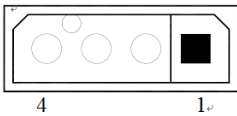
Top view



Bottom view

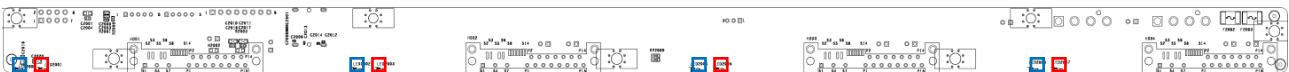


Power Connector (JPWR1, JPWR2)



Pin	Description
1	+12V
2	GND
3	GND
4	+5V

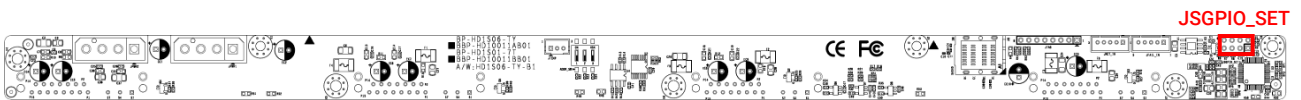
### 3.5.3 LED Indicator



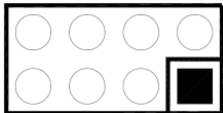
HDD Activity LEDs	Blue (On)	HDD present
	Blue (Blinking)	HDD Activity detected or Locate HDD
	Blue (Off)	HDD no connect or Power Off
HDD Fault/Status LEDs	Red (On)	HDD Fault or Locate HDD
	Red (Blinking)	Re-build status
	Off	Normal

### 3.5.4 Jumpers

Pin1, 2	Open	Disable External LED input.
	Close	Enable External LED input.
Pin3, 4	Open	Activity LED from HDD Pin P11.
	Close	Activity LED from SGPIO.
Pin5, 6	Open	Identify behavior according to Host.
	Close	Blinking the Identify LED behavior.
Pin7, 8	Open	Disable SGPIO.
	Close	Enable SGPIO.



Function and SGPIO setting (JSGPIO\_SET)



# Chapter 4. Technical Support



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