

# SAS3 JBOD Family

SC847 – **44** x 3.5" HDD



SC417 – **88** x 2.5" HDD



SC847**E1C**/E2**C**-R1K28JBOD



SC417**E1C**/E2**C**-R1K41JBOD



FatTwin



TwinPro



SuperBlade



GPU / Xeon Phi



MicroCloud



MicroBlade



Storage



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Switch



Software



Complete Rack Solutions

# SAS3 Storage Chassis with JBOD Solutions



SC836B – 16 x 3.5" HDD



SC846B – 24 x 3.5" HDD



SC826 – 12 x 3.5" HDD



CSE-PTJBOD-CB3



SC847B – 36 x 3.5" HDD



SC216B – 24 x 2.5" HDD



SC417B – 72x 2.5" HDD



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# SC847E1C/E2C-R1K28JBOD

## ✓ Extra High-Density 4U Double-Sided JBOD Storage Chassis

- Total **44x** 3.5 Hot-swap HDDs (24 front + 20 rear)
- Direct hot-swap access to all HDDs

## ✓ HDD Backplane

- SAS3 (12Gb/s) expander backplane
- Single (E1C) or Dual (E2C) expanders solutions
- Support SAS2/3/SATA HDDs

## ✓ Power Supply

- High efficiency 1280W Digital Switch Platinum level
- (1+1) Redundant power supply
- Power Management (PMBus) support

## ✓ Cooling

- Total 7x80mm high quality Hot-Swap Fans
- (1+1) Redundancy cooling fan design
- Optimized design for rear side HDDs cooling

## ✓ JBOD Power card – CSE-PTJBOD-CB3 (included)

- Remote monitoring and **control** via IPMI (power, fan and UID)

## ✓ 4 ports (2 in+2 out) external mini SAS HD with dummy(E1C)

## ✓ 8 ports (4 in+4 out) external mini SAS HD (E2C)



SC847-JBOD Front View – **24** x 3.5" HDDs



SC847-JBOD Rear View – **20** x 3.5" HDDs

## ✓ Application – Corp DB/File, Cloud storage, iSCSI, Media/Stream, Video-on-Demand, Security....etc.,





# SC417E1C/E2C-R1K41JBOD

## ✓ Extremely High-Density 4U Double-Sided JBOD Storage Chassis

- Total **88x** 2.5 Hot-swap HDDs (48 front + 40 rear)
- Direct hot-swap access to all HDDs

## ✓ HDD Backplane

- SAS3 (12Gb/s) expander backplane
- Single (E1C) and Dual (E2C) expanders solutions
- Support SAS2/3/SATA HDDs

## ✓ Power Supply

- High efficiency 1400W Gold level
- (1+1) Redundant power supply
- Power Management (PMBus) support

## ✓ Cooling

- Total 7x80mm high quality Hot-Swap Fans
- (1+1) Redundancy cooling fan design
- Optimized design for rear side HDDs cooling

## ✓ JBOD Power card – CSE-PT JBOD-CB3 (included)

- Remote monitoring and **control** via IPMI (power, fan and UID)

## ✓ 4 ports (2 in+2 out) external mini SAS HD with dummy (E1C)

## ✓ 8 ports (4 in+4 out) external mini SAS HD (E2C)



SC417-JBOD Front View – **48** x 2.5" HDDs



SC417-JBOD Rear View – **40** x 2.5" HDDs



# SAS3 JBOD Kit

## E1C Low Profile Rear I/O

Qty	P/N	Description
1	CSE-PTJBOD-CB3-O-P	CSE-PTJBOD-CB3 JBOD card with IPMI
1	MCP-120-84702-0N	CB3 JBOD Card Bracket
1	AOM-SAS3-16I16E-LP	Ext. to Int. Mini-SAS HD Adapter (Low-profile)
4	CBL-SAST-0531	Internal Mini-SAS HD cable 80cm
1	CBL-CDAT-0601	4P-4P I2C cable
1	CBL-NTWK-0587	IPMI Cable
1	MCP-120-84706-0N	Low-Profile IPMI port bracket
2	CBL-SAST-0573	1m external Mini SAS HD to external mini SAS HD

## E2C Low Profile Rear I/O

Qty	P/N	Description
1	CSE-PTJBOD-CB3-O-P	CSE-PTJBOD-CB3 JBOD card with IPMI
1	MCP-120-84702-0N	CB3 JBOD Card Bracket
2	AOM-SAS3-16I16E-LP	Ext. to Int. Mini-SAS HD Adapter (Low-profile)
8	CBL-SAST-0531	Internal Mini-SAS HD cable 80cm
1	CBL-CDAT-0601	4P-4P I2C cable
1	CBL-NTWK-0587	IPMI Cable
1	MCP-120-84705-0N	Low-Profile IPMI port bracket
4	CBL-SAST-0573	1m external Mini SAS HD to external mini SAS HD

## E1C Full Height Rear I/O

Qty	P/N	Description
1	CSE-PTJBOD-CB3-O-P	CSE-PTJBOD-CB3 JBOD card with IPMI
1	MCP-120-84702-0N	CB3 JBOD Card Bracket
1	AOM-SAS3-16I16E	Ext. to Int. Mini-SAS HD Adapter (Full-height)
4	CBL-SAST-0531	Internal Mini-SAS HD cable 80cm
1	CBL-CDAT-0601	4P-4P I2C cable
1	CBL-NTWK-0587	IPMI Cable
1	MCP-120-84706-0N	Full-height IPMI port bracket
2	CBL-SAST-0573	1m external Mini SAS HD to external mini SAS HD

## E2C Full Height Rear I/O

Qty	P/N	Description
1	CSE-PTJBOD-CB3-O-P	CSE-PTJBOD-CB3 JBOD card with IPMI
1	MCP-120-84702-0N	CB3 JBOD Card Bracket
2	AOM-SAS3-16I16E	Ext. to Int. Mini-SAS HD Adapter (Full-height)
8	CBL-SAST-0531	Internal Mini-SAS HD cable 80cm
1	CBL-CDAT-0601	4P-4P I2C cable
1	CBL-NTWK-0587	IPMI Cable
1	MCP-120-84706-0N	Full-height IPMI port bracket
4	CBL-SAST-0573	1m external Mini SAS HD to external mini SAS HD



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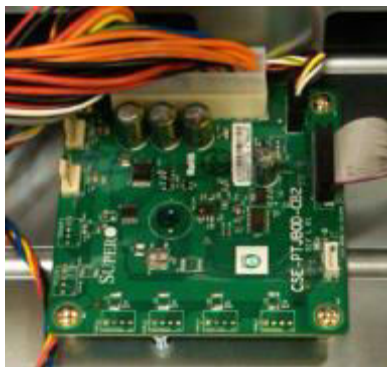
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# CB3 JBOD Card Key Features

- Support optimized fan cooling thru PWM control up to 10 Chassis Fans
- Provide Static IP for initial IPMI setup
- New feature to support DHCP with a unique MAC address
- Allow IP infrastructure for remote power-off and wake-on-LAN feature
- Support NTP for time synchronization
- Support RTC with battery backup
- Support PMBus for power supply status monitoring

## CSE-PTJBOD-CB3 Specs:

1 x IPMI port (BMC chip)  
 2 x LAN LED  
 1 x UID LED  
 10 x fan headers  
 1 x PMBus  
 4 x I<sup>2</sup>C  
 1 x USB  
 1 x RS-232  
 1 x Front panel controller board  
 1 x 24pin ATX power connector



CSE-PTJBOD-CB2



CSE-PTJBOD-CB3



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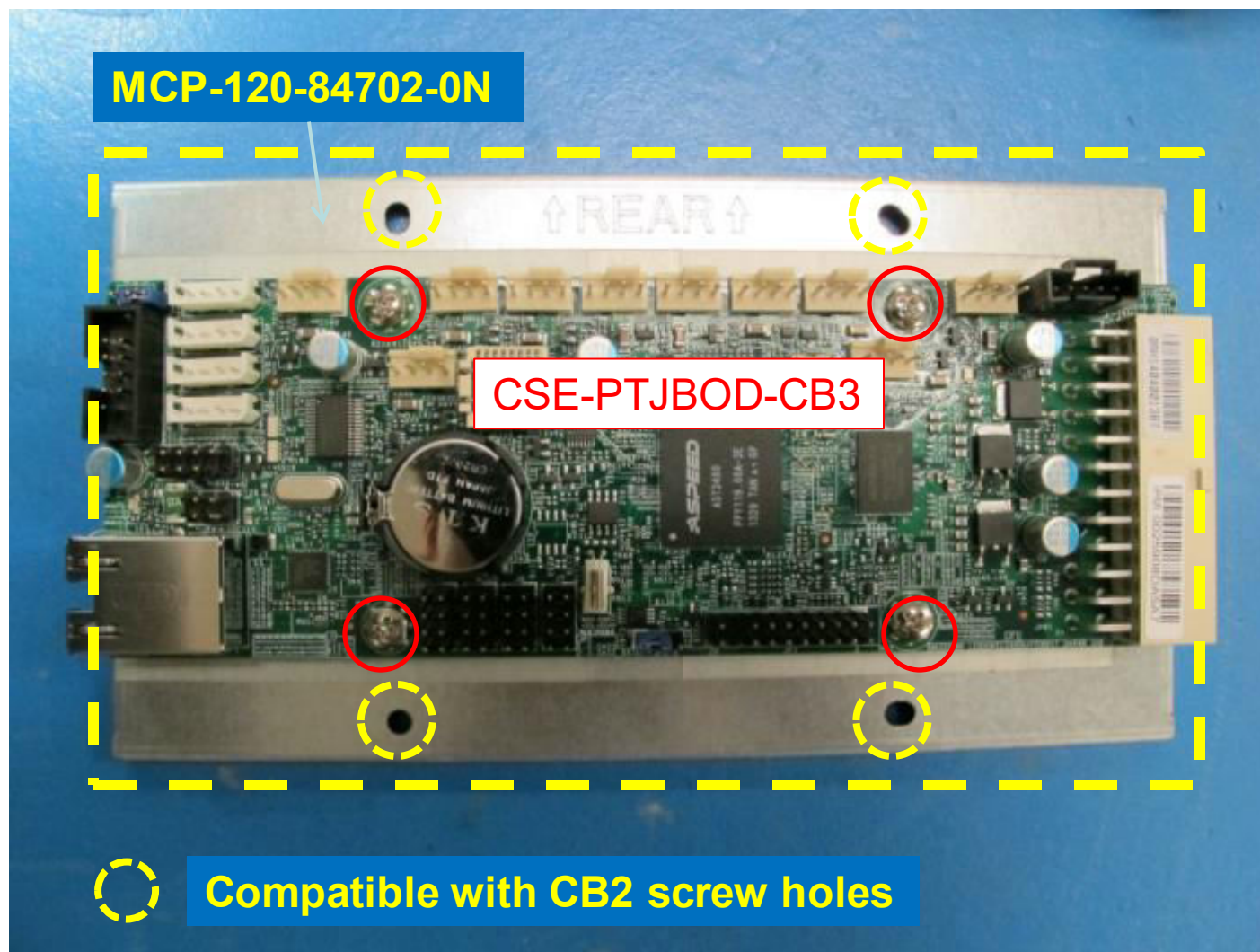
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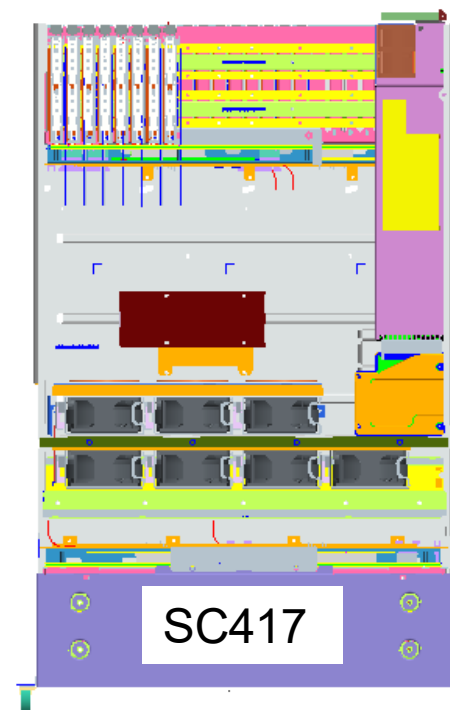
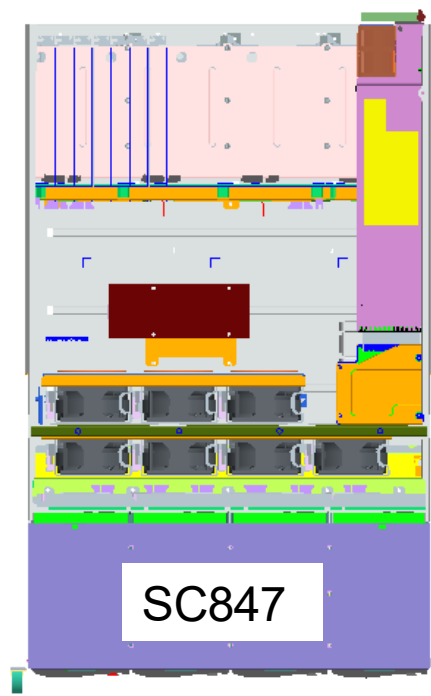
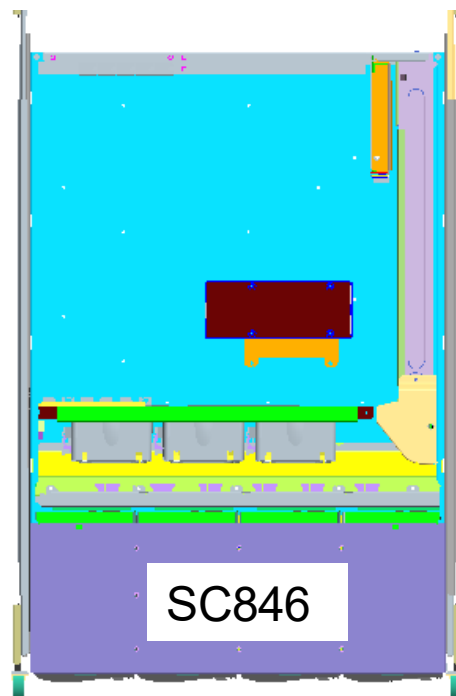
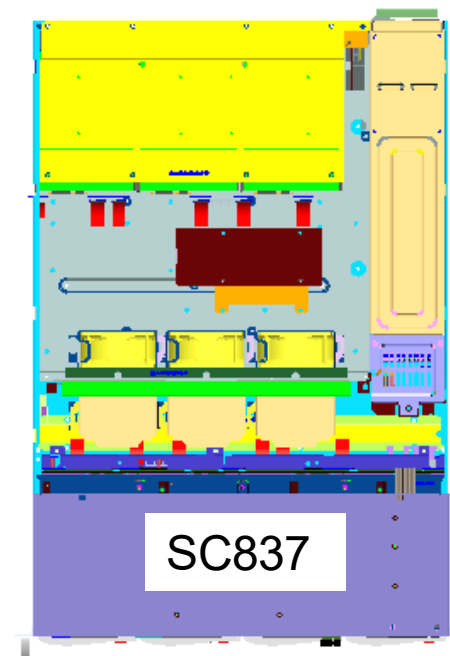
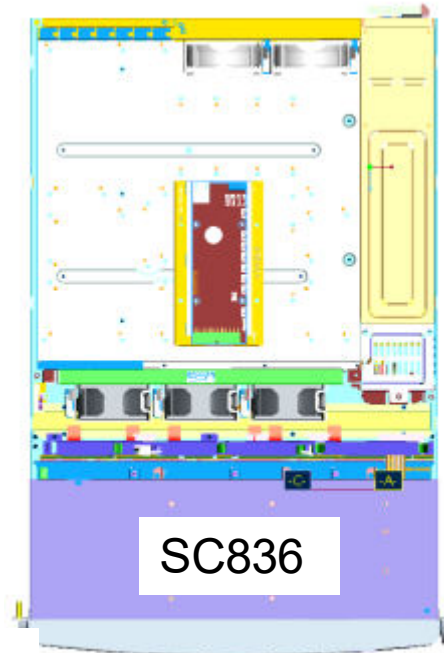
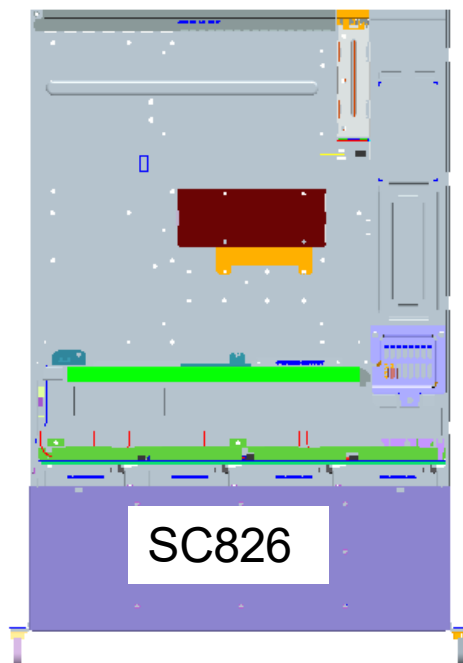
Software

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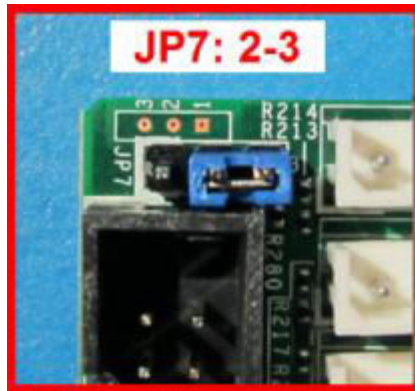
# CSE-PTJBOD-CB3 can be install on JBOD chassis with MCP-120-84702-0N adapter bracket



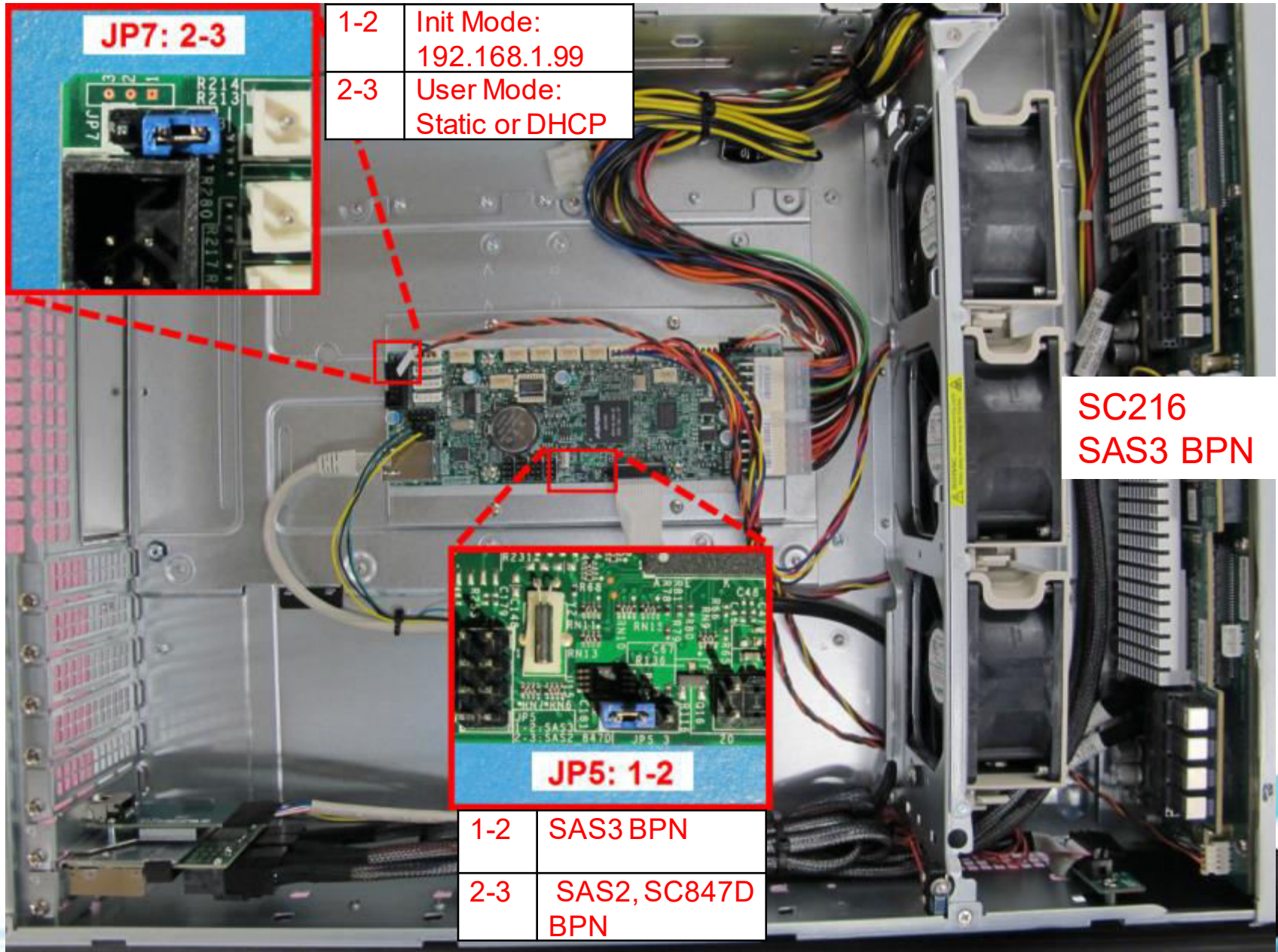




# Jumper setting for IPMI IP mode and backplane type



1-2	Init Mode: 192.168.1.99
2-3	User Mode: Static or DHCP



SC216  
SAS3 BPN

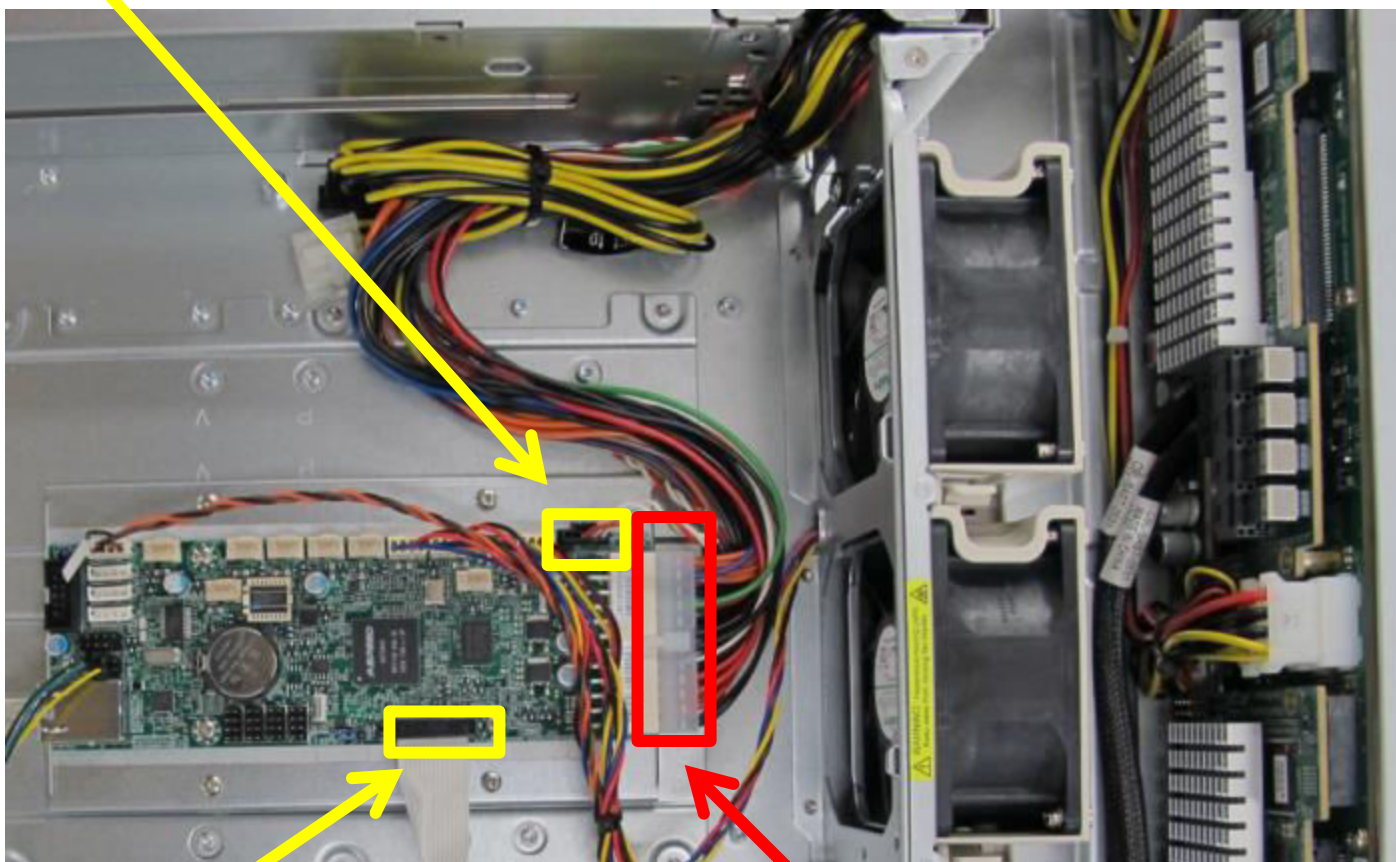


1-2	SAS3 BPN
2-3	SAS2, SC847D BPN



# Power, PMBus and Front panel connectors

PMBus from power supply



Front panel 16-pin cable

24-pin power connector



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SuperBlade

GPU / Xeon Phi

MicroCloud

MicroBlade

Storage

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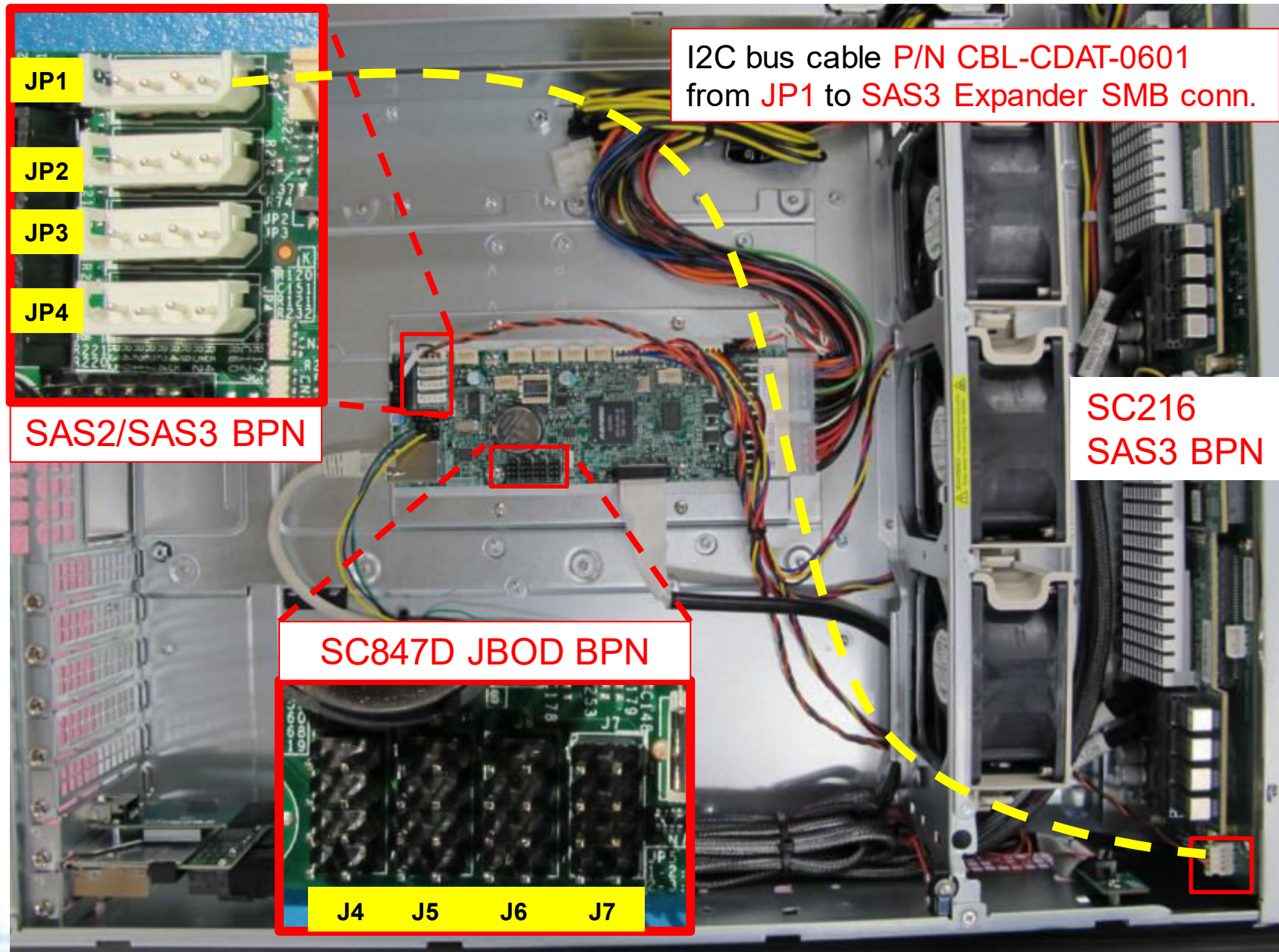
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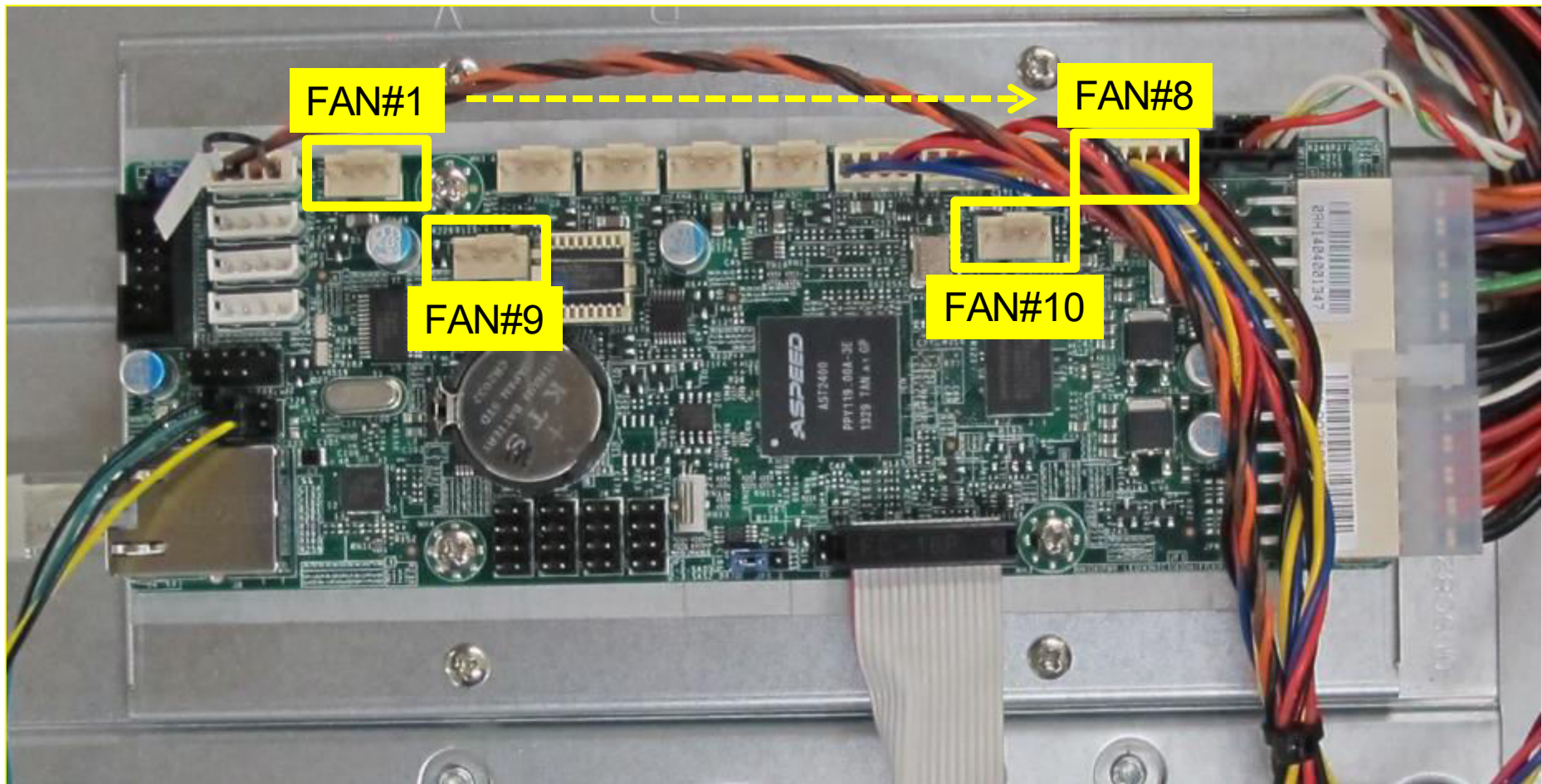


# I2C connectors for SAS2/SAS3/847D JBOD





# Fan connector locations

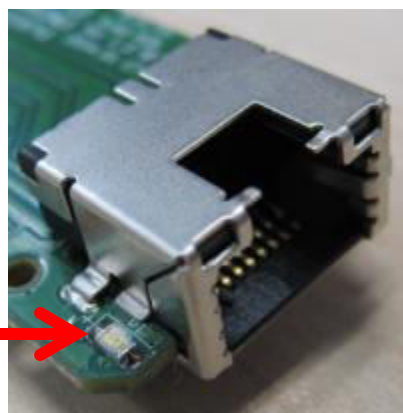
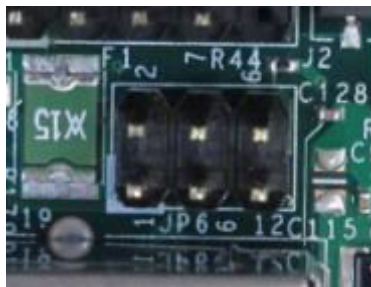


\* Fan# on CB3 silk screen are correspond to IPMI sensor reading fan#

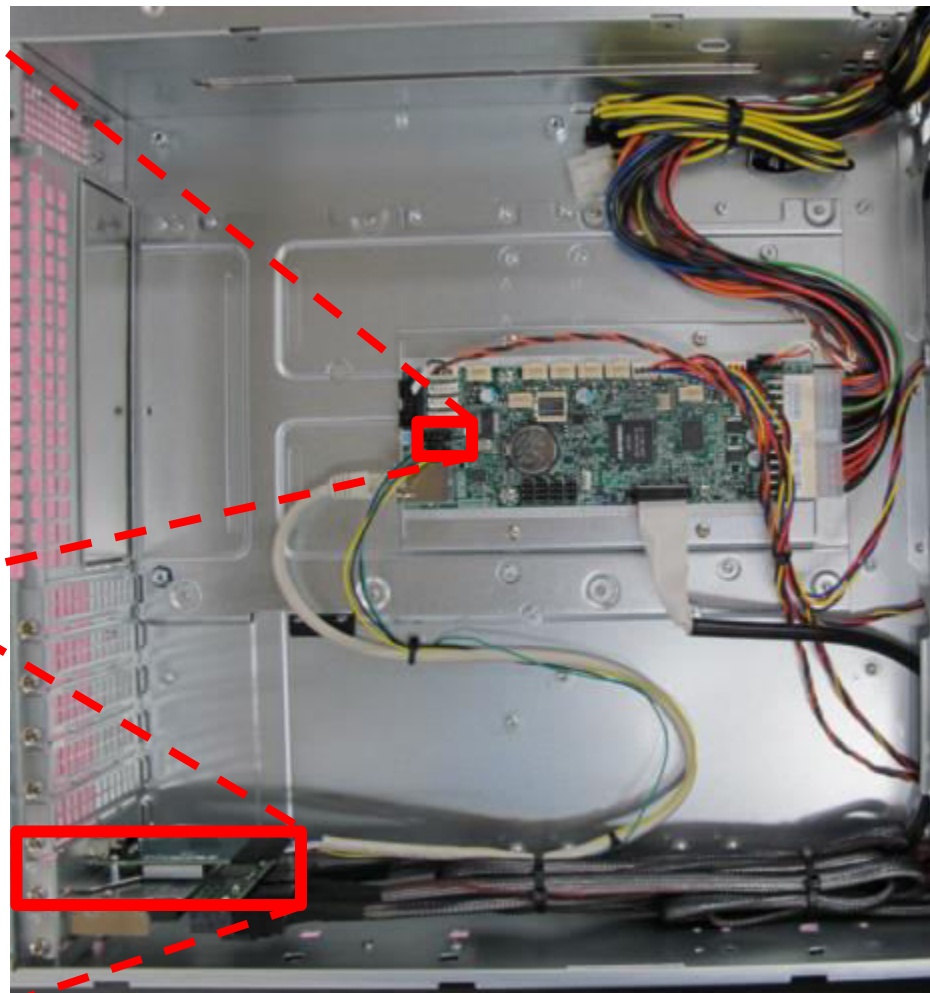
# IPMI LAN cable connection

Act	Link	Gnd
Gnd*	Gnd	UID

\* Pin #1



CBL-NTWK-0584  
(847D JBOD ) &  
CBL-NTWK-0587  
(rev 1.2)  
LAN activity LED +  
UID LED



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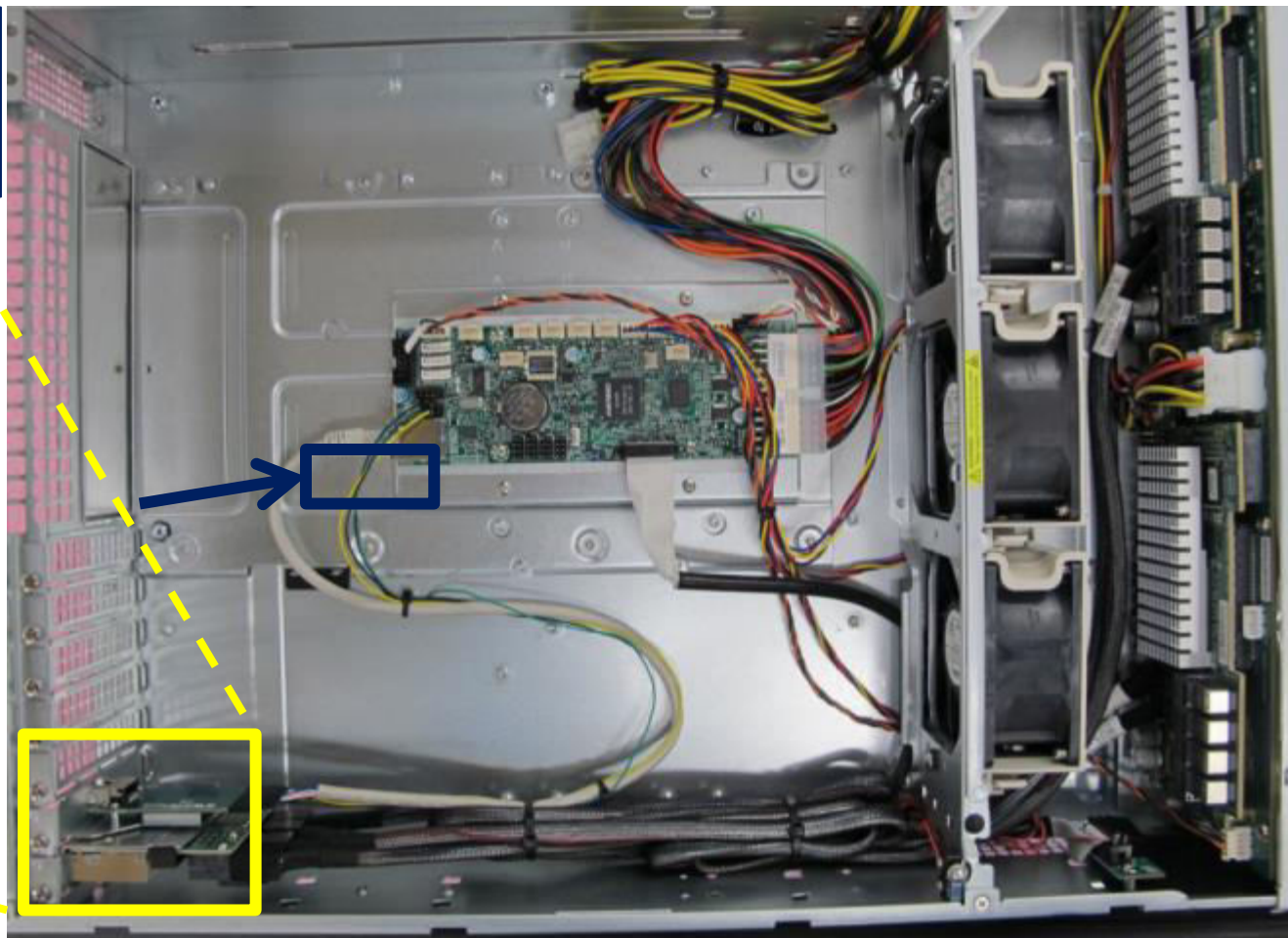
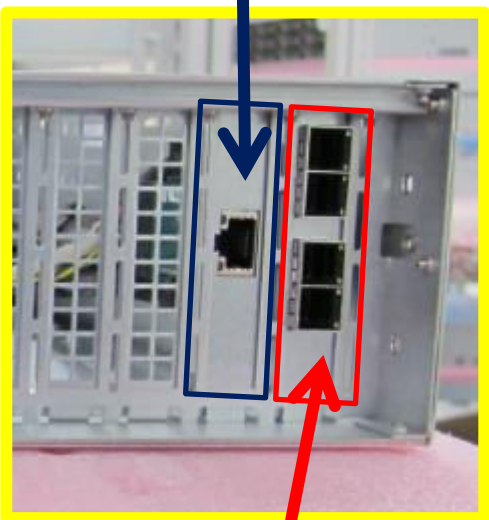
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# IPMI and Mini SAS HD rear connector bracket

CBL-NTWK-0587 (rev 1.2)  
+ MCP-120-84706-0N



AOM-SAS3-16I16E-LP



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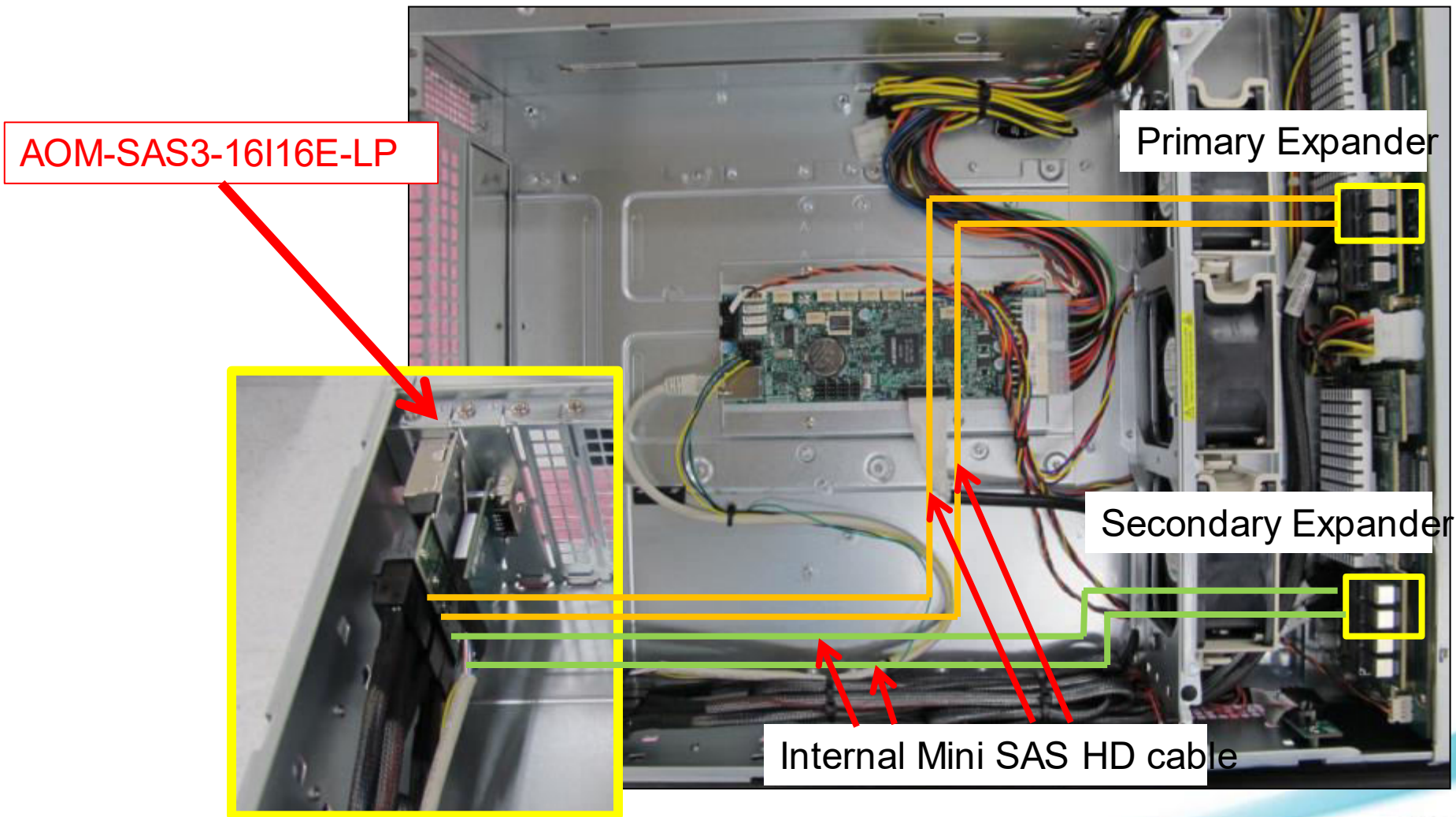
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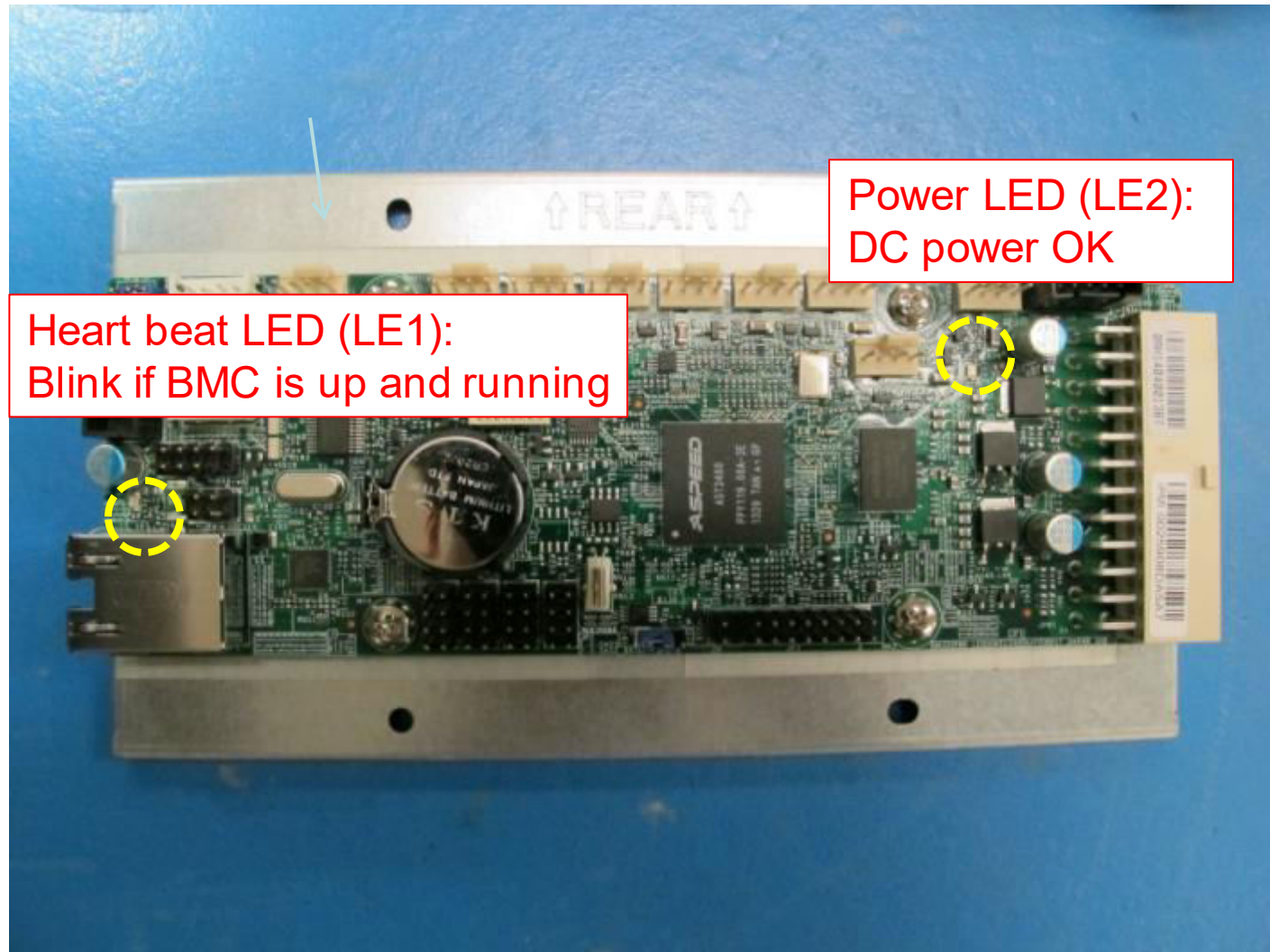
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# Mini SAS HD internal cabling for 216 SAS3 backplane



# Onboard LED indicator



## Operation of the JBOD system with CB3 card:

1. Power button: Depress for power on, Press >5sec for power down
2. Local UID/Reset IPMI IP button: Depress for local UID On/Off, Press >10sec to reset IP to default 192.168.1.99
3. Power LED : Standard function
4. IPMI LAN LED: : Standard function
5. Information LED: Standard function
6. Power Failure LED : Standard function



### Power up

1. Plug in AC cord to power supply
2. Plug in LAN cable\*
3. Wait until LAN LED start to blink
4. Depress power button
5. JBOD system power up

*\* If LAN cable is not plug in, then user have to wait for approximately 1 min, or 10 seconds after heart beat LED start to blink*

### Power down

1. Depress power button for 5 seconds
2. BMC will start shutdown sequence and complete shut down within 10 seconds





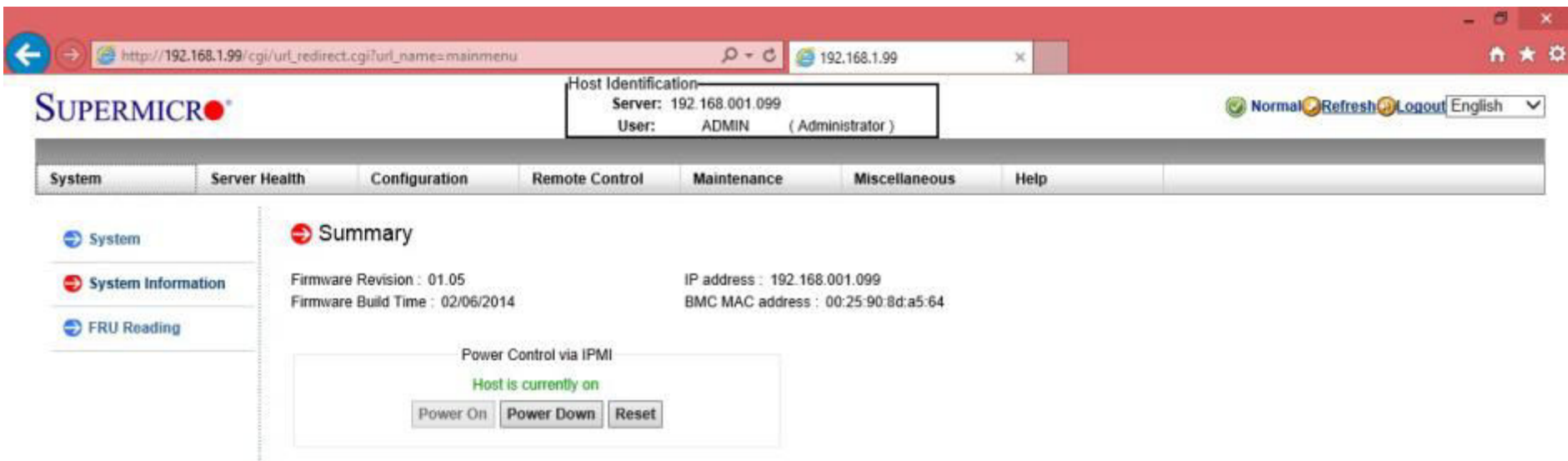
# CSE-PTJBOD-CB3 IPMI Configuration

IPMI Default IP:

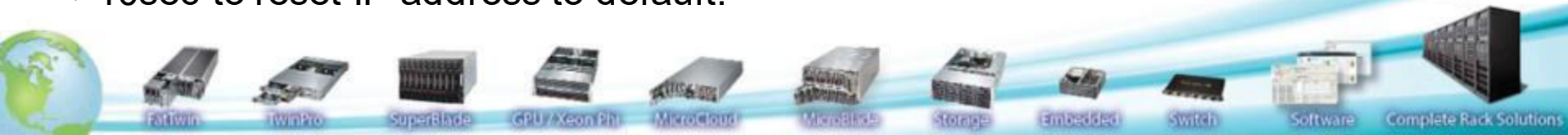
192.168.1.99\*

User name: ADMIN

Password: ADMIN



\*User can either set JP7 in 1-2 and cycle power to put the CB3 back to default IP, or CB3 FW v1.05 above user can depress chassis front panel reset button for >10sec to reset IP address to default.



# FAQ

1. If Power LED is ON but heart beat LED is not blinking after 1min upon plug AC cord:
  - a) Check the power supply
  - b) IPMI FW lost (rare), need to contact SMC on how to flash the FW using USB port
2. If HDD Red LED blinking after system is powering up, check the I2C cable polarity.
3. PCI bracket for iPass HD external-to-internal adapter (MCP-280-84701-0N)

Type	# of port	P/N
Low Profile	4 port	AOM-SAS3-16I16E-LP
	2 port	MCP-280-00028-0N
Full High	4 port	AOM-SAS3-16I16E
	2 port	MCP-280-00029-0N

