

CHENBRO

12-Port 6Gb/s Expander on Backplane

80H10323501A0

User's Manual

December / 2010

Copyright

Copyright © 2010 Chenbro Micom Co., Ltd.. All rights reserved.

Unless otherwise indicated, all materials in this manual are copyrighted by Chenbro Micom Co., Ltd.. All rights reserved. No part of this manual, either text or image may be used for any purpose other than internal use within purchasing company. Therefore, reproduction, modification in any form or by any means, electronic, mechanical or otherwise, for reasons other than internal use, is strictly prohibited without prior written permission.

Chenbro Micom Co., Ltd. reserves the right to make improvement and modification to the products indicated in this manual at any time. Specifications are therefore subject to change without prior notice.

Information provided in this manual is intended to be accurate and reliable. However, Chenbro Micom Co., Ltd., assumes no responsibility for its use, nor for any infringements upon the rights of third parties, which may result from its use.

Technical Support

Chenbro works hard to offer our customers maximum performance from our chassis. But in case you have any problem with our product you can find supports from the following resources.

Web Support

Detail information of our products is in our website. You can find technical updates, installation guides, FAQs, technical specifications and more. Our web address is: www.chenbro.com.

Email Support

You can also fill out the technical support form at our [Technical Support](#) page. Your technical issue inquiries will be sent directly to our support professionals.

Phone Support

You can also contact Chenbro HQ or branch office for immediate support; contact information is as following:

Chenbro HQ	Chenbro Europe B.V.	Chenbro Micom (USA) Inc.
Tel: 886-2-8226-5500	Tel: 31-40-295-2045	Tel: 1-909-947-3200
Fax: 886-2-8226-5423	Fax: 31-40-295-2044	Fax : 1-909-947-4300
Chenbro UK LTD	Chenbro China Office	
Tel: 44-(0)161-973-8152	Tel: 86 010-6709-1786	
Fax: 44-(0)161-962-8653	Fax: 86 010-6709-1786	

Contents

Copyright	2
Technical Support	2
Contents	3
Safety Instruction	4
Revision History	4
6Gb/s Backplane Specification	5
Accommodation Chassis	5
Backplane Layout	6~9
Fabricate sequence	10~13

Safety Instruction

CAUTION:

Informs the user of conditions that might result in damage to hardware, corruption of customer data or application software, or long-term health hazard to people. A caution always precedes the information to which it relates.

WARNING:

Alerts the user to conditions that might result in injury or death. A warning always precedes the information to which it pertains.

Revision History

Date	Modifications
December / 29 / 2010	● First release

6Gb/s Backplane Specification

P/N: 80H10323501A0

Host Interface	1x Mini-SAS (SFF-8087) connector to the host via SAS expander, and 1x Mini-SAS connector for daisy-chain.
HDD Interface	12 x SAS (15+7+7) and SATA-II (15+7) compatible with 3.5" HDD
Hot-Swap	Hard drives can be replaced during the system on
Display	LED indicates HDD status (Defined by Chenbro) Power LED – Blue light (HDD is on) Access LED – Green flash (HDD is working) Error indicator – Red light (HDD is abnormal)
Cooling	Heat-sink x 1
Power Connector	Standard +5V and +12V 4-pin power connector x 4
Other Connectors	PIN Header 2.0mm (2x5) x 1 PIN Header 2.54mm (1x4) x 1 PIN Header 2.54mm (2x3) x 1 6-dip function switch x 1 2-dip Power mute & power alarm x 2 4-dip Fan connector x 4
Dimension	420 mm (Length) x 78.6 mm (Width) x 2.4 mm (Thickness)
Material	FR4 8 layer

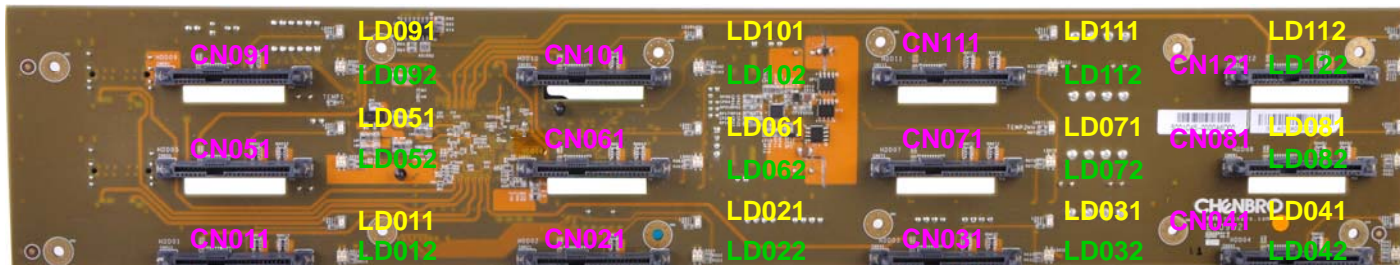
Accommodation Chassis

- RM235
- RM418
- RM417

Backplane Layout

Backplane Connectors

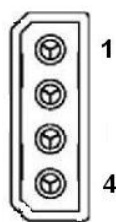
Front View



Rear View

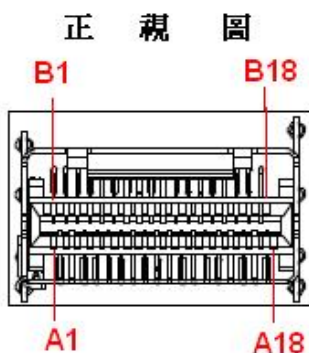
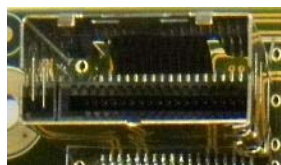


- (1) [LD011 / LD021 / LD031 / LD041 / LD051 / LD061 / LD071 / LD081 / LD091 / LD101 / LD111 / LD121] :
 “Blue lights on” indicated hard drive is power on.
- (2) [LD012 / LD022 / LD032 / LD042 / LD052 / LD062 / LD072 / LD082 / LD092 / LD102 / LD112 / LD122] :
 “Green lights flash” indicated hard drive is working.
 “Red lights on” indicated hard drive is abnormal or malfunction.
- (3) [JP1 / JP2 / JP3 / JP4] : Power Connector (+5V and +12V 4pin)



Pin Number	Descriptions
1	12V
2	GND
3	GND
4	5V

(4) [CSIN / CSOUT] : Mini-SAS Connector



Pin NO.	Descriptions	Pin NO.	Descriptions
A1	GND	B1	GND
A2	RP1	B2	TP1
A3	RN1	B3	TN1
A4	GND	B4	GND
A5	RP2	B5	TP2
A6	RN2	B6	TN2
A7	GND	B7	GND
A8	SG_CK	B8	NC
A9	SG_LD	B9	GND
A10	GND	B10	SG_DO
A11	NC	B11	SG_DI
A12	GND	B12	GND
A13	RP3	B13	TP3
A14	RN3	B14	TN3
A15	GND	B15	GND
A16	RP4	B16	TP4
A17	RN4	B17	TN4
A18	GND	B18	GND

(5) [SW1] : Function Switch.



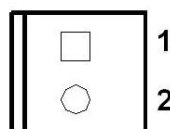
Pin Number	Function	On	Off
1	Fan NO	4	3
2	PWM	Enable	Disable
3	TEMP HI	65	55
4	Fan Alarm	Enable	Disable
5	Buzzer	Enable	Disable
6	SES MON	Enable	Disable

(6) [JC4 / JC5] : Power Mute and Power Alarm.



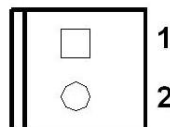
POWER FAIL ALARM Connector (JC4)

Pin NO.	Descriptions
1	GND
2	Fail signal Input(Active Low)

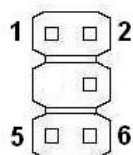


POWER FAIL MUTE Connector (JC5)

Pin NO.	Descriptions
1	MUTE -
2	MUTE +



(7) [JC8] : The system status LED and mute function pin, and it is connection with LED board.



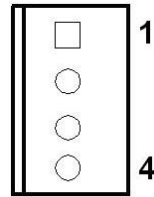
Pin NO.	Descriptions
1	SYS FAIL LED +
2	SYS FAIL LED -
3	Key Pin
4	NC
5	Mute +
6	Mute -

(8) [FAN1 / FAN2 / FAN3 / FAN4] : 4P4C Fan Connector.



Fan Connector (JF1 ~ JF4)

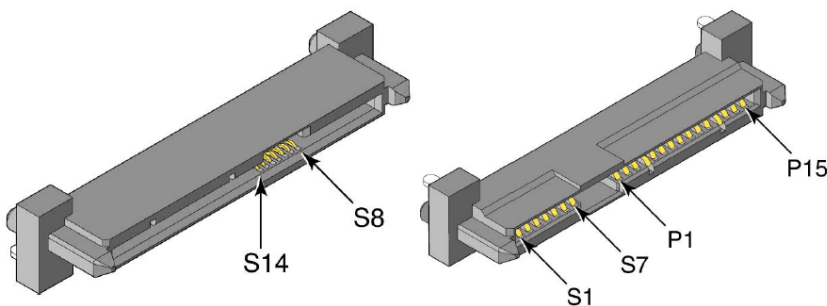
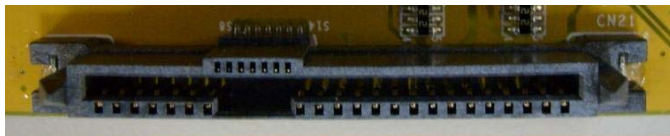
Pin NO.	Descriptions
1	GND
2	12V
3	FAN Clock Input
4	FAN PWM Output



(9) [JF5 / JC1 / JC3] : Reserved for Chenbro use only.



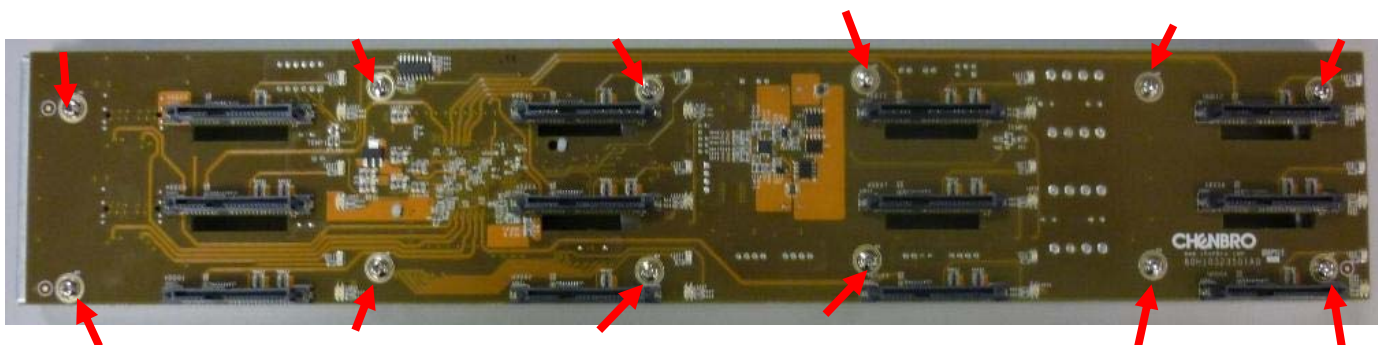
(10) [CN011 / CN021 / CN031 / CN041 / CN051 / CN061 / CN071 / CN081 / CN091 / CN101 / CN111 / CN121] :
 To connect with hard drives (22-pin SATA-II or 29-pin SAS).



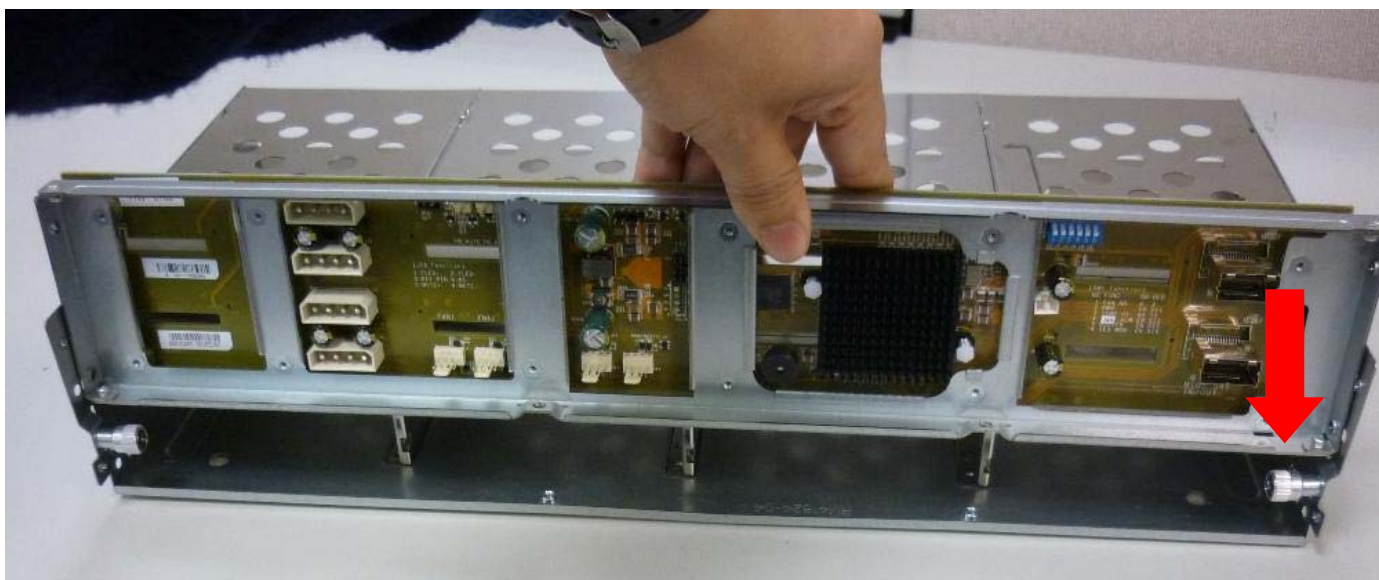
Pin NO.	Descriptions	Pin NO.	Descriptions
S1	GND	P1	NC
S2	RP	P2	NC
S3	RN	P3	NC
S4	GND	P4	GND
S5	TN	P5	POWER ENABLE
S6	TP	P6	GND
S7	GND	P7	5V PRE-CHARGE
S8	NC	P8	5V
S9	NC	P9	5V
S10	NC	P10	GND
S11	NC	P11	ACCESS SIGNAL
S12	NC	P12	GND
S13	NC	P13	12V PRE-CHARGE
S14	NC	P14	12V
		P15	12V

Fabricate sequence

1. Screw the backplane on the bracket.



2. The backplane with bracket has to be slid behind the HDD cage.

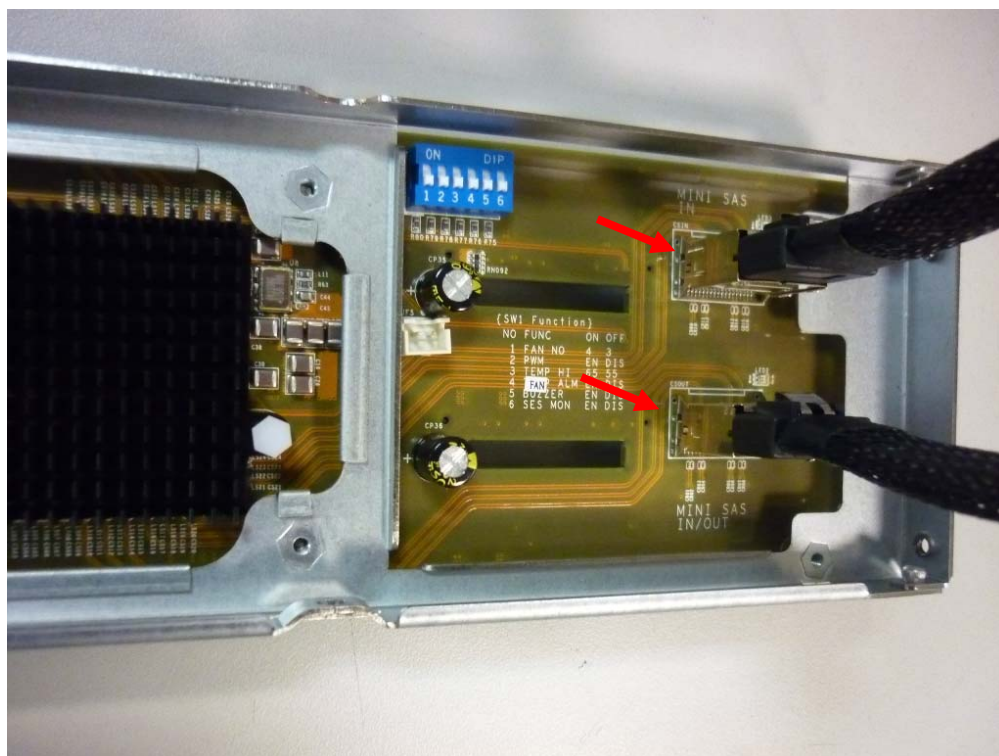


3. Screw the backplane bracket on the HDD cage.



4. The Mini-SAS connectors are connected with the Mini-SAS cables.

[CSIN / CSOUT]



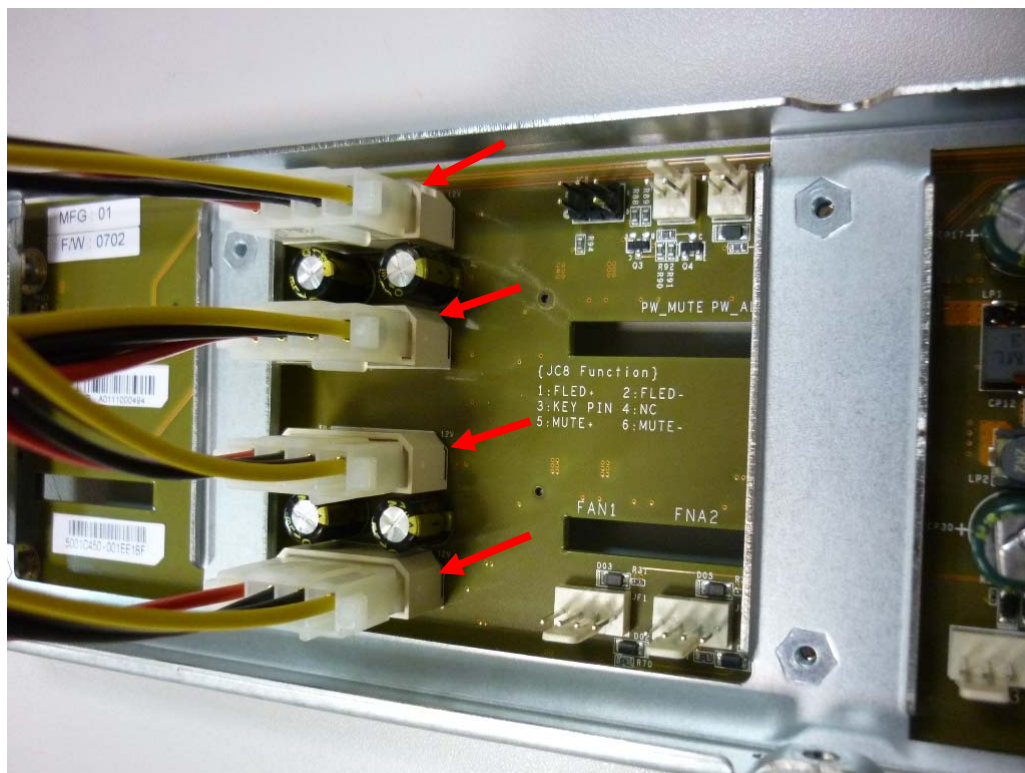
5. The system status LED and mute function pin, and its connection with LED board.

[JC8]



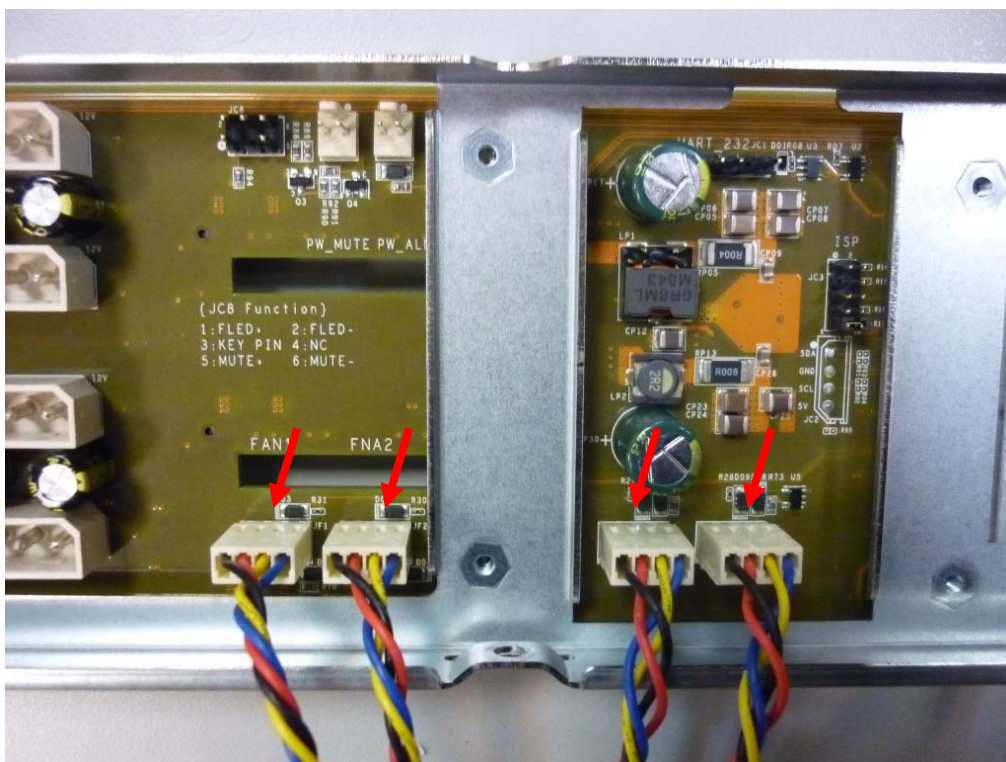
6. The power cables are connected with the header on backplane.

[JP1 / JP2 / JP3 / JP4]



7. The fan cables are connected with the fan connectors on the backplane. [FAN1 / FAN2 /

FAN3 / FAN4]



8. The mute and alarm function cable of power supply are connected with the power mute and power alarm pin on the backplane. [JC4 / JC5]

