

# **CHENBRO**



## Chassis Management Board User's Manual

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July / 7 / 2009



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## **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: <u>www.chenbro.com</u>.

## Email Support

You can also fill out the technical support form at our <u>Technical Support</u> page. You 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; their contact Information is as following:

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## **Revision History**

Date	Modifications
July / 7 / 2009	• First Release



## Safety Information

- Read the installation instructions before connecting to the power source.
- Only trained and qualified personnel should be allowed to install, replace or service this equipment.
- Never install this product in a wet environment.
- Position system cables and power cables carefully; route system cable and the power cable and plug so that they cannot be stepped on or tripped over. Be sure that nothing rests on your system component cables or power cable.

## **Conventions Used in this Manual**

The following conventions are used in this manual.



Important Icon:

Provides important information on the current topic that must not be overlooked.

## Introduction

### About this Guide

This Chassis Management Board (CMB) user's manual provides the information for functions, capabilities, configuring and using of fan control in chassis.

## Introducing Chenbro Chassis Management Board (CMB)

Chenbro CMB provides a convenient way for fan, PSU and system temperature monitoring in chassis. Via the software utility, system manager can monitor the status in operation center. The function of CMB includes fan PWM control, fan failure, system overheat, PSU failure alarm and alarm mute.



## CMB Hardware



No.	Description	Function
1	SW1	DIP1~10 function setup for Fan control, temperature detection or PWM control
2		Standard 4-pin power connectors. When using up to 6x fans, it is recommended
2	CNT, CNZ	to have all power connectors connected.
2	174 170	Reference thermal sensor pin headers. Must have 2 thermal couple wires
3	JII, JIZ	connection when fan monitoring function is enabled.
4	CN2	System failure & alarm mute signal pin headers (connecting to chassis LED
4	CNS	board). Pin[1-2] = alarm LED;    Pin[5-6] = alarm mute switch
		PWM fan bypass pin header for M/B on-board fan control. Specified cable
5	CN6	required for connecting to fan connectors on M/B. Meanwhile, SW1-DIP9 should
		be set to [OFF]
e		Group-A 8-pin fan connectors (for 8P8C double-deck fans only). SW1-DIP10
0	JA I~JA0	must set to [ON] when fan is connected
7		Group-B 4-pin fan connectors (for 4P4C / 3P3C fan). SW1-DIP10 must set to
'	JFI~JFO	[OFF] when fan is connected
8	JP1	PSU failure alarm (TTL) signal connector (for redundant PSU only)
9	JM1	PSU failure alarm mute signal connector (for redundant PSU only)
10	D4	Buzzer continually alarm indicating system fan failure
10		Buzzer dis-continually alarm indicating system temperature failure (overheat)
11	LED1	Green LED blinking indicates CMB works normal

12	CN9	RS-232 (COM port) for M/B and CMB communication. RS-232 cable is required
		when using CMB utility. Meanwhile the JP2 must be set to [1-2] closed.
13	CN7	Function reserved for factory programming
14	102	CMB to M/B RS-232 or USB mode connecting selection
14	JFZ	Pin[1-2] = RS-232 (COM Port), Pin[2-3] = USB
15	JP3	Function Reserved for I <sup>2</sup> C function selection
16	CN4	Function Reserved for factory programming
17	CN5	External USB connector, the JP2 must be set to [2-3] closed.
18	CN8	Function Reserved for I <sup>2</sup> C connection

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Not support mixed fan connection on Group-A and -B at same time.

#### **Function Switch Pin Definition (SW1)**

	DIP 1~6	DIP 7	DIP 8	DIP 9	DIP 10
ON	Fan1~6 Monitoring Enable independently	Temperature detecting by JT1 & JT2 Enable	Alarm Temperature is 55℃	PWM controlled by CMB	Support 8-pin connector fans (Group-A)
OFF	Fan1~6 Monitoring Disable independently	Temperature detecting by JT1 & JT2 Disable	Alarm Temperature is 65°C	PWM controlled by motherboard	Support 4-pin connector fans (Group-B)

- DIP1~DIP6: Fan 1~6 monitoring enable [ON] / disable [OFF]
  - When it's enabled, the thermal sensors must be connected to [JT1 & 2]
  - The fan quantity and SW1 setting enabled must be mapped
  - When all fans monitoring set to [OFF], the fans will run as non-PWM mode without any alarm function



No matter PWM or non-PWM fan is connected, the fan monitoring function is enabled when DIP1~6 is set to "ON" position.

- DIP7: temperature monitoring enable [ON] / disable [OFF]
  - When it's enabled, the thermal sensors must be connected to [JT1 & 2]
  - When any fan monitoring is enabled, this DIP7 should be set to enabled at same time
  - When it's disabled, the fans will run as non-PWM mode
- DIP8: alarm temperature setting by 55°C [ON] / 65°C [OFF]
- DIP9: PWM control source mode selection. Local CMB [ON] / Motherboard on-board fan connector [OFF]
- DIP10: Fan group selection. Group-A [ON] / Group-B [OFF]. DIP10 must be set at correct position, otherwise the fan will run as non-PWM.



System Failure & Alarm Mute Signal Pin Header (CN3)



Pin[1-2] : Alarm LED

Pin[5-6] : Alarm Mute Switch

CMB to M/B RS-232 or USB mode connecting selection (JP2)



Pin[1-2] : RS-232 (COM Port) Pin[2-3] : USB

Pin 1

## Fan PWM Duty Cycle v.s System Temperature

## Function Switch DIP8 Setting at On for 55°C Alarm Temperature



### Function Switch DIP8 Setting at Off for 65°C Alarm Temperature



Apply 2 thermal couple on JT1 & JT2 and set DIP7 to ON enabling the temperature monitoring function



Figure-1

## CMB Utility Installation and Operation

#### Purpose

The CMB Utility is required when CMB is applied in Chenbro chassis.

#### **System Wiring**

Typical wiring please refers to following example (Figure-1).



#### **Supported OS**

Windows XP / 2000 / Server 2003 / Vista

#### **Utility Installation**

Download zipped utility file (Chenbro CMB Utility.zip) from Chenbro website. Execute "Setup.exe" by following indication.





👼 СМВ U Destinati	likity (Ver AO) – InstallShield Wizard ion Folder of to install to this folder, or disk Charge to instal to a different fo	
	Instal CMB Utility [Ver.A0] to: C:\Program Files\CMB\	
Installsheid	< Back Next >	Cancel

eady to Install the Program The wizard is ready to begin inst	tallotion.
If you want to review ar change exit the wizard.	e any of your installation settings, dick Back. Click Cancel to
Current Settings:	
Setup Type:	
Destination Folder:	
C:\Program Files\CMB\	
User Information:	
Name:	
Company:	





When setup completed, there will be a group (Chenbro CMB) and shortcut generated in the Windows

start-up menu. User can verify a new device "Megawin USB" in the "COM / LPT" of device manager.



Figure-2

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This utility will be operated as windows register program, a small icon will be Shown on the tooling bar when minimize the operation window.

#### Main operation window

There are two sub-pages for different function.

System Connection Relative Information

Eile <u>H</u> elj Operatior	p n Duration	0 day 00	:01 Mode: Local	System Tin	e: 2009.5.22, 13:22:01 🎢
Device Li System	st (Swith D n 1 C	Device Here) — ) System 2	O System 3 O System 4	+ O System 5	C System 6
STATUS	ALA	RM )		Current Device Ir	formation
Group A	RPM	PWM (%)	Temperature		
FAN 1_1	NA	NA	Temp. 1: NA	System Name:	System 1
FAN 2_1	NA	NĂ	Temp. 2: NA	M/B Model:	unknown
FAN 3_1	NA	NA	Threshold: 65		
FAN 4_1	NA	NA	Switch Status	RPS Model:	unknown
FAN 5_1	NA	NA	1234567890	COM Port:	COM 1
FAN 6_1	NA	NA	O ON	CMB EW Version	. 1.0
		4		A CONTRACTOR	1
Group A	RPM	PWM [%]		[	✓ Set Config.
FAN 1_2	NA	NA	2 FAN 2 (ON:EN/OFF:DIS)		
FAN 2_2	NA	NĂ	3 FAN 3 (ON:EN/OFF:DIS)		Link Status
FAN 3_2	NA	NA	5 FAN 5 (ON:EN/OFF:DIS)		Connected
FAN 4_2	NA	NA	6 FAN 6 (ON:EN/OFF:DIS)		
FAN 5_2	NA	NA	7 ITEMP SENSOR (EN/DIS) 8 ITEMP Thres, (55/65) deg.	OLK	NIDDO
FAN 6_2	NA	NA	9 PWM (EN/MB-ctrl)		
			IN IFAN Model (A or B)		
		Status and A	arm Monitoring Pages	Figure-3	System Current Devic information Area



#### System Connection Relative Information

This area shows the main information of connected systems, which includes:

- Operation Duration: This presents CMB utility program is been executed after properly connection with M/B
- Local or Remote Mode: The local mode is used when the CMB is connected via COM port to the M/B in the same chassis. The remote mode is used for a stand-alone server connect to an extension chassis which has CMB installed. Normally the remote mode is base on USB connection
- System time: This shows the target execution of the system clock.
- Device list: There are up to 6x system (CMB) can be monitored at one time. Factory default setting is start from system1, and normally to be the server with CMB integrated. For the system2~6, it's normally runs as "remote" mode, see Figure-4 for the connection concept.





#### Scroll Function Menu

There are several function on the menu and allow customer to use depends on real operation requirement for remote management via Ethernet (UDP).

 Protection Mode: This setting is operated base on preventing any improper access from remote server. However, the protection enable / disable only can be set in local mode, not the remote mode. When the protection mode is enabled, only local mode access and control is allowed. (See Figure-5)



Ele Help		And the second		I. Contraction of the second	
Remote L	ogin	0 day 00	102 Model Local	System Time: 200	19.5.22, 13:22:58
Enotection	Ол	Tem 2	🔘 System 3 👘 System	i 🔿 System 3	O System 6
Change P	azsword	1		Current Device Informe	ntion
Polling in	terval	WM (%)	Temperature	Curtan Manage	
Refresh C	OM Port	A A	Temp. 2. NA	M/R Model	em i
Exit	0.630.80529.	A	Threshold: 65	PDS Model:	nown
1000 0 1	NG	A	Switch Status	In a rinder. Junki	nown
FANN 5_1	NA	NA	1234567390	COM Port: COM	1 .
FAN 6_1	NA.	NA	D QN	CNB FW Version:	1.0
Sreup A	BPM	PVM (23)			
FAN 1.2	NA	NA	t FAN 1 (CN:EN/OFF:DIS)		ser coning.
Fam 2.3	NA	No	3 FAN 3 (ON:EN/OFF:DIS)	Lif	ik Status
Fan 3.2	NA	Na	4 FAN 4 (ON:EN/OFF:DIS)	00	meeted
TAN 6.2	NA	NA	S FAN 5 (ON:EN/OFF:DIS) 6 FAN 6 (ON:EN/OFF:DIS)		
CARL E. T.	10.	874	7 TEMP SENSOR (EN/DES)		
reve all's	NP4	NA.	8 TEMP Thres. (55/65) deg.	CLKM	PDO
FAN 6_2	NA.	NA	9 PWH (DN/MB-cb1)	CIRCIN	DRU

Remote Login: This is for host server to access the external chassis (ex. JBOD) with integrated CMB, monitor and control the CMB via Ethernet base on UDP. When execute the remote monitoring, the Ethernet networking information should be checked before a pop-up login window. Meanwhile, the password is required for accessing (See Figure-6).

Login for Remote Control		
Remote IP Address:	192.168.1.1	
User Password:		
	X Cancel V Login	Figure-6

• Change Password: This is for the protection mode password change, only base on "local mode" administration.



#### System Current Device Information

This area provides the user-define information input which includes System Name, M/B model, RPS model, and connection COM port. User can save the data as a file.



The COM port selection should be checked the device manager after utility is installed and executed. Only the COM port is set properly, the connection between CMB and M/B can be established.



#### Status and Alarm Monitoring Pages

This area includes the major information of environment status and alarm information.

- Status: This page include the monitoring of "Fan status", "Temperature status", SW1 "Switch setting", and CMB "Link status".
  - Fan monitoring: when PWM fan(s) connected, the RPM and PWM (%) mode will be

detected and shown on the relative column. (See Figure-7 a.)



According to Group-A application, the bottom group is only activated when 8P8C "double-deck fan" is connected. When the SW1-DIP1~6 is set to "OFF", all the columns of fan status will show "NA". (See Figure-8)

Operation	up In Duratica	D dae 23	Node: Local	Suctor Dee	· 2000 5 00 12-26-02
Caerado	int (swith	Dowee Vere	www. Mode: Local	aysten ilme	, 2009-0.22, 15:20:02
System	n 1 n 1	Cevice Here) -	O System 3 C System 4	C System 5	O System 6
013(8)		and the second sec	Contraction of Constitution	the second	Conservation of
STATUS	AU	NEM		- Current Device Inf	ormation
Group 9	RPN	PsvM (%)	Temperature		
EAN 1	3192	50	Temp. 1: 25	System Name:	System 1
FAN 2	NA	NA	Temp. 2: 25	M/8 Model:	unknown
FAN 3	NA	NA	Threshold: 65	DDE Models	land and an and a second se
EAN 4	NA	NA	Switch Status	itra riouei.	Junknown
EAN 5	NA	NA	1234567890	COM Port:	COM 1 🔹
FAN S	NA	NA	o o c DN	CNB FW Version:	1.0
			1 FAN 1 (ON EN/OFF DIS)		🖌 Set Config.
			2 FAN 2 (ON EN/OFF DIS)		
			3 FAN 3 (ON:EN/OFF:DIS) 4 FAN 4 (ON:EN/OFF:DIS)		Link Status
			5 FAN 5 (ON EN/OFF DIS)		Connected
			6 FAN 5 (ON EN/OFF DIS)		
			8 TEMP Three. (55/65) deg.	CLK	
			g PWM (EN/MB-ctrl)		NDKU
CMB	Utility (	Ver. A0)	C PWM (EN/NB -stri) C FAR Model (A pr B)	Спе	
CMB Elle Hel Operation Device Li System	Utility ( P 1 Duration st (Swith 1	Ver. A0) 0 day 00 Device (lere) 7 System 2	C System 2 C System 4	System Time	2009.5.22, 13:26:42 //
CM B Eile Hel Operation Device Li System Status	Utility ( P 1 Duration st (Swith 1 3 1 4 1 4	Ver. A0) odayoo Devica Here) System 2 Rii	C FAN Model (A or B)	System Time C System 5 Current Device Info	2009.5.22, 13:26:42 //
CMB Eile Hel Operation Device Li System STATUS Ging A	Utility ( P 1 Duration st (Swith 1 1 < REM	Ver. A0) 0 day oo Device Here) 9 System 2 Pix ( PixM (x)	C PWM (EN/NB-stri) C FAN Model (A or B) 0:05 Mode: Local C System 9 C System 4 Temperature	System Time C System 5 Current Device Info	2009.5.22, 13:25:42
CM B Eile Hel Operation Device Li System Status Fan 1_1	Utility ( P 1 Duration st (Swith 1 1 1 5   eLe Rem 3:52	Ver. A0) 0 day oo Device Here) 9 System 2 Ria   Pwm (x) 100	C PWM (EN/NB stri) C FAN Model (A or B)	System Time C System 5 Current Device Info System Name:	2005.5.22, 13:25:42 System 6 ormation System 1
CM B Eile Hel Operation Device Li System Status Fan 1_1 Fan 2_1	Utility ( p 1 Duration st (Swith 1 st - S l = Le Ren 3:52 NA	Ver. A0) Device Here) System 2 RM   (PvM (X) 100 NA	C PWM (EN/NB stri) C FAN Model (A or B)	System Time C System 5 Current Device Info System Name: M/8 Model:	2005.5.22, 13:25:42 C System 6 official System 1 unknown
CM B Eile Hel Operation Device Li Status Status Fan 1_1 FAN 2_1 FAN 3_1	Utility ( p 1 Duration st (Swith 1 st = 1 st = 2 st	Ver. A0) Device Here) System 2 RM   (PvM (X) 100 NA NA	C System 3 C System 4 Temperature Temp. 2: 25 Threshold: 55	System Time System 5 Current Device Info System Name: M/B Model: BBS Model:	2005.5.22, 13:26;42 C System 6 official System 1 unknown
CM B Eile Hel Operation Device Li Status Status Fan 1_1 FAN 2_1 FAN 3_1 FAN 4_1	Utility ( P 1 Duration st (Swith 1 st (S	Ver. A0) Device Here) System 2 RM   (PvM (%) 100 NA NA NA	C PWM (EN/NB-stri) C FAX Model (A or B)	System Time System 5 Current Device Info System Name: M/B Model: RPS Model:	2005.5.22, 13:26;42 C System 6 ofmetion System 1 unknown unknown
CM B Eile Hel Operation Device Li Status Fan 1_1 FAN 2_1 FAN 3_1 FAN 3_1 FAN 5_1	Utility ( P of a Duration st (Swith 1 st	Ver. A0) Device Here) System 2 RM   (PvM (X) 100 NA NA NA NA NA	C PWM (EN/NB-stri)     C FAX Model (A or B)	System Time C System 5 Current Device Info System Name: M/B Model: RPS Model: COM Port:	2005.5.22, 13:26;42 C System 6 official System 1 unknown unknown CDM 1
CMB Eile Hel Operation Device Li Status Fan 1_1 FAN 2_1 FAN 3_1 FAN 3_1 FAN 5_1 FAN 5_1	Utility ( P of a Duration st (Swith 1 st	Ver. A0) Device Here) System 2 RM ( PVM (X) 100 NA NA NA NA NA NA	0         PWM (EN/NB-stri)           0         FAN Model (A or B)           0         System 3           0         System 3           0         System 3           1         25           Temperature         7           Temp. 1:         25           Temp. 2:         25           Threshold:         55           Switch Status           12         3           1         1           1         1           1         1	System Time System S Current Device Info System Name: M/B Model: RPS Model: COM Port: COM Port:	2005.5.22, 13:26;42 C System 6 ormetion System 1 unknown unknown CDM 1
CMB Eile Hel Operation Device Li Status Fan 1_1 Fan 2_1 Fan 3_1 Fan 3_1 Fan 5_1 Fan 5_1	Utility ( P 1 Duration st (Swith 1 1 S P PR RPR 3752 NA NA NA NA NA	Ver. A0) Device Here) System 2 RM ( PVM (X) 100 NA NA NA NA NA NA	C PWM (EN/NB.dr/)     C FAX Model (A or B)	System Time System S Current Device Info System Name: M/B Model: RPS Model: COM Port: CMB FW Version:	2005.5.22, 13:26;42 C System 6 ormation System 1 unknown unknown com 1 1.0
CMB Eile Hel Operation Device Li Status Ginar A FAN 1_1 FAN 2_1 FAN 2_1 FAN 3_1 FAN 3_1 FAN 5_1 FAN 5_1 FAN 5_1 FAN 5_1	Utility ( P Duration st (Swith 1 1 St PER RER 3752 NA NA NA NA NA NA	Ver. A0) 0 day oo Device Here) 9 System 2 RM   (PvM (X) 100 NA NA NA NA NA NA NA	C PWM (EN/NB-stri)     C FAX Model (A or B)      O     System 3     C System 4      Temperature     Temp. 1: 25     Temp. 2: 25     Threshold: 55      Switch Status     12 34 56 78 92(     0 0     0 0     0 0	System Time System S Current Device Info System Name: M/B Model: RPS Model: COM Port: CMB FW Version:	System 1 unknown CDM 1 1.0 Set Confin
CMB Eile Hel Operation Device Li Status Fan 1_1 FAN 2_1 FAN 2_1 FAN 3_1 FAN 3_1 FAN 5_1 FAN 5_1 FAN 5_1 FAN 5_1 FAN 1_2	Utility ( P Duration st (Swith 1 1 St (Swith 1	Ver. A0) 0 day 00 Device Here) 9 system 2 RM   PVM (X) 100 NA NA NA NA NA NA NA NA NA NA NA NA	C         PWM (EN/NB-stri)           C         FAN Model (A or B)           0:05         Mode: Local           0:05         C:System 4           1:05         System 3           0:05         Mode: Local           0:05         Temp. 1:           0:05         Threshold:           0:05         Mode: Status           1:0:04:05         ON           0:05         ON           0:05         ON:EN/OFFIDIS           1:0:04:EN/OFFIDIS	System Time System S Current Device Info System Name: M/B Model: RPS Model: COM Port: CMB FW Version:	System 6 Ormation System 6 System 1 unknown unknown LOM 1 1.0 Set Config.
CMB Eile Hel Operation Device Li Stattus Fran 1_1 Fran 2_1 Fran 2_1 Fran 2_1 Fran 3_1 Fran 3_1	Utility ( P Duration st (Swith 1 1 Size RER 3352 NA NA NA NA NA NA NA NA NA NA	Ver. A0) 0 day 00 Device Here) Bystem 2 Pom (x) 100 NA NA NA NA NA NA NA NA NA NA	C         PWM (EN/NB-stri)           C         FAN Model (A or B)           0:05         Mode: Local           0:05         C:System 4           0:05         C:System 4           0:05         Temp. 1: 25           0:05         Threshold: 55           0:06         00           12:04:00         0FF           12:00:EN/0FF:01S)         0FF           2:FAN 2 (ON:EN/0FF:01S)         0FF           3:FAN 3 (ON:EN/0FF:01S)         0FF	System Time System S Current Device Info System Name: M/B Model: RPS Model: COH Port: CHB FW Version:	System 6 Ormation System 6 Ormation System 1 Unknown Unknown Unknown Lift Status
CMB Eile Hel Operation Device Li Stattus Fran 1_1 Fran 2_1 Fran 2_1 Fran 2_1 Fran 3_1 Fran 3_1 Fran 3_1 Fran 5_1 Fran 5_1 Fran 5_1 Fran 5_1 Fran 1_2 Fran 1_2 Fran 2_2 Fran 2_2 Fran 3_2	Utility ( P Duration st (Swith 1 1 S PRE REE NA NA NA NA NA NA NA NA NA NA	Ver. A0) 0 day 00 Device Here) Bystem 2 RM   PVM (X) 100 NA NA NA NA NA NA NA NA NA	0         PWM (EN/NB - dr/)           0         FAN Model (A or B)           0         System 9           1         S	System Time System S Current Device Info System Name: M/B Model: RPS Model: CON Port: CMB FW Version:	System 6 Ormetion System 6 Ormetion System 1 Unknown
CMB Eile Hel Operation Device Li Status Status Status Sinar A FAN 1_1 FAN 2_1 FAN 2_1 FAN 3_1 FAN 3_2 FAN 3	Utility ( P Duration st (Swith 1 1 S PRE 3152 NA NA NA NA NA NA NA NA NA NA	Ver. A0) 0 day 00 Device Here) Bystem 2 PVM (8) 100 NA NA NA NA NA 100 NA NA NA NA NA NA	C         PWM (EN/NB - dr/)           C         FAN Model (A or B)           0:05         Model (A or B)           0:06         System 4           0:05         C           0:06         System 4           0:06         System 3           0:07         25           0:06         System 4           0:07         25           0:06         System 4           0:07         25           0:07         25           0:07         07           0:07         07           0:07         07           0:07         07           0:07         07           0:07         07           0:07         07           0:07         07           0:07	System Time System S Current Device Info System Name: M/B Model: RPS Model: COH Port: CHB FW Version:	System 6 Ormation System 6 Ormation System 1 Unknown Unknown Unknown Link Status Connected
CMB Eile Hel Operation Device Li Status Status Since A FAN 1_1 FAN 2_1 FAN 2_1 FAN 2_1 FAN 3_1 FAN 3_2 FAN	Utility ( P Duration st (Swith 1 1 S PRE 3352 NA NA NA NA NA NA NA NA NA NA	Ver. A0) 0 day 00 Device Here) Bystem 2 PVM (X) 100 NA NA NA NA NA NA NA NA NA NA	C         PWM (EN/NB - dr/) C           C         FAN Model (A or B)           X05         System 4           X05         System 3           X05         System 4           X05         Temperature           Temp. 2:         25           Threshold:         55           Switch Status         0FF           12 S4 S6 78 90()         0FF           2 FAN 2 (ON:EN/OFF:DIS)         SFAN 3 (ON:EN/OFF:DIS)           3 FAN 3 (ON:EN/OFF:DIS)         SFAN 4 (ON:EN/OFF:DIS)           3 FAN 4 (ON:EN/OFF:DIS)         SFAN 5 (ON:EN/OFF:DIS)           3 FAN 6 (ON:EN/OFF:DIS)         SFAN 5 (ON:EN/OFF:DIS)           3 FAN 6 (ON:EN/OFF:DIS)         SFAN 5 (ON:EN/OFF:DIS)	System Time System S Current Device Info System Name: M/B Model: RPS Model: CON Port: CMB FW Version:	System 6 Ormation System 6 Ormation System 1 Unknown Unknown Unknown Link Status Connected

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Temperature monitoring: this area shows the real environment temperature when the thermal sensors are connected and SW1-DIP7 is set to "ON" position. (Showing "NA" when DIP7 set to "OFF", see Figure-9 a.). The threshold shows the definition of alarm temperature. It's automatically detected according to DIP8.



Operation	Ouration	0 day 00	:06 Mode: Local	5ystem Tim	e: 2009.5.22, 13:28
Oevice Li     Osystem	it (Swith D	evice Here) — System 2	🔿 System 3 🛛 🔘 System	4 🔘 System 5	O System 6
STATUS	ALAR	ж I	a.	Current Device In	formation
Group B	BPM	PWM (%)	Temperature		
FAN 1	3132	50	Temp. 1: 25	System Name:	System 1
FAN 2	NA	NA	Temp. 2: 25	M/B Model:	unknown
FAN 3	NA	NA	Threshold: §5	DDE Model	
FAN 4	NA	NA	Switch Status	KP 3 PID 081:	Inuknowy
FAN S	NA	NA	1234567890	COM Port:	COM 1
FAN 6	NA	NA	c o c CN	CMB FW Version	1.0
		d	0 0 0 0 0 0         0         0 0 0 FF           1         FAN 1 (ON:EN/OFF:DIS)         2           2         FAN 2 (ON:EN/OFF:DIS)         3           3         FAN 3 (ON:EN/OFF:DIS)         4           4         FAN 4 (ON:EN/OFF:DIS)         5           5         FAN 5 (ON:EN/OFF:DIS)         5           6         FAN 6 (ON:EN/OFF:DIS)         2           7         TEMF SENSOR (EN/DIS)         8           8         TEMP Thres. (55/65) deg.         9           9         FAM Model (A or B)         1	e. CHC	Set Config. Link Status Connected

Figure-9

CHENBRO

- SW1 status: this shows the setting position of SW1 DIP1~10 on CMB. (See Figure-9 c.) Figure-9 d. shows the function description of SW1.
- Link Status: When a CMB is connected to M/B via COM port with this CMB utility operation, a message will show "Connected", and message "Polling" shows every 3 seconds to check the linking status. (See Figure-9 e.)

If there is no cable connection, this status will show "Disconnected", and all the monitoring function is disabled. (See Figure-10)

several second second	Ciccy 00	:07 Mode: Loca	System The	System Time: 2009.5 23, 15 28:42	
Device der (Swith • System 1	Device Herei Disystem 2	O System 8 O System	• O System a	Oreysten 5	
STATUS   AL	ям		Current Device In	normation	
Consep         F F 64           RBA: 1         3132           LOA: 2         DA           RBA: 3         NA           RBA: 3         NA           RAB: 5         NA           RAB: 5         NA           RAB: 6         NA	P-H(3) 50 ků ků ků ků	Temperature           Tempi 1         25           Tempi 2         25           Threaduld         85           Switch Status         12           1         12         10           1         12         10           1         12         10           1         12         10           1         12         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10           1         10         10	System Name: M/S Model: BPS Model: COM Part: CMB EW Version	System 1 unknown Unknown COH 1 - COH 1 - Unk Status Discommentation	

Figure-10

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**KNBRO** Alarm Notification: This page shows all the monitored devices status. When any alarm is triggered, the relative column will change to corresponding messages and defined

colors. If user mute the buzzer via alarm mute switch at front control panel (connected

to CN3), the failure LED will remain enabled until alarm event is fixed.

Figure-11 shows the failure status with alarm mute triggered.



The redundant PSU failure only be enabled when PSU module failed or un-installed. It's not support the voltage monitoring.

CMB Ur	ility (Ver. A0)					
Eile Help Operation D	uration 0 da (Swith Device Here	y 00:08	Mode: Local	System Time	e: 2009.5.22, 13:30:02 🛛	
System 1 STATUS Group B FAN 1 FAN 2 FAN 3 FAN 4 FAN 5	C System 2 ALARM Normel Mute Alarm NA NA	System 3	C System 4	Current Device In System Name: M/B Nodel: RPS Nodel: COM Port:	em 5 O System 6 vice Information ume: System 1 : unknown : unknown : COM 1	
FAN 6	NA		Normal Normal Alaim Alaim Mute NA	CMB FW Version:	1.0 ✓ Set Config. Link Status Connected	

Figure-11

Alarm (Pop-up) Window: When any alarm event is triggered, a pop-up window (see Figure-12) is shown to notify administrator.



≶



Alarm Log File: Open the event log file (see Figure-13) to read detail alarm information (see Figure-14).



Figure-13

Alarm Log	X
[ TIME 2009/1/6 12:03:16] FAN: Alarm [ TIME 2009/1/6 12:03:19] FAN: Normal [ TIME 2009/1/6 12:04:17] FAN: Alarm [ TIME 2009/1/6 12:05:33] FAN: Alarm [ TIME 2009/1/6 12:05:33] FAN: Alarm [ TIME 2009/1/6 13:42:44] FAN: Normal [ TIME 2009/1/6 13:42:50] FAN: Normal [ TIME 2009/1/6 13:44:51] FAN: Alarm [ TIME 2009/1/6 13:44:54] FAN: Normal	
🗶 Clear	Close

#### Figure-14

Change the Logo

User may change the default "CHENBRO" logo with the following process.

1. Create user own logo file: The picture format must be BMP file.

The pixel must be 227 x 40.

The file name must be productlogo.bmp 2. Copy the new file to C:\Program Files\CMB\others to instead the original one.

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## **Cabling Example**

