

Release Note for AIC SAS 6G Hot-swappable Expander

Dec 10, 2012

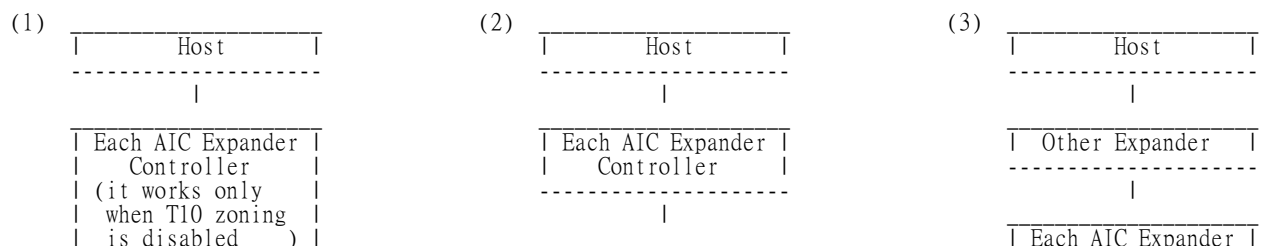
Changelog

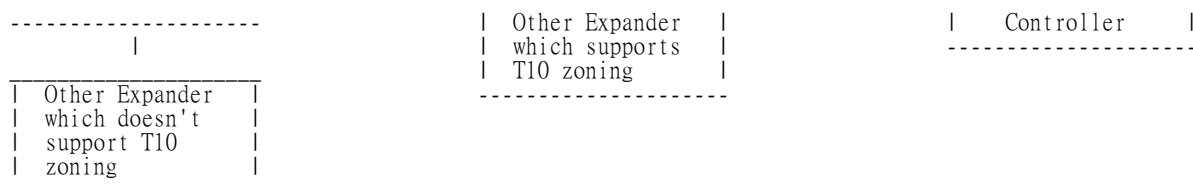
- 12/10/2012 (firmware 1.11.5.7 + mfg 1.5.0.3) - Part Number (B98-00XUXXE2110507 + B98-00XUXXG2050003)
 Old Part Number B98-00XUXXE2110506 is replaced by B98-00XUXXE2110507.
 1. Resolve the issue of uncontrollable HDD fault LED after the HDD is removed/re-inserted.
- 10/29/2012 (firmware 1.11.5.6 + mfg 1.5.0.3) - Part Number (B98-00XUXXE2110506 + B98-00XUXXG2050003)
 Old Part Number B98-00XUXXG2050002 is replaced by B98-00XUXXG2050003.
 1. Change the text descriptor for Array Device from "ArrayDeviceYY" to "DiskZZZ" where YY is the slot ID in hexadecimal form and ZZZ is the slot ID in decimal form.
- 10/19/2012 (firmware 1.11.5.6 + mfg 1.5.0.2) - Part Number (B98-00XUXXE2110506 + B98-00XUXXG2050002)
 Old Part Number B98-00XUXXE2110505 is replaced by B98-00XUXXE2110506.
 Old Part Number B98-00XUXXG2050001 is replaced by B98-00XUXXG2050002.
 1. Add signal settings to support 2U24swap, 2U24swap2, 3U16swap, and 4U24swap.
- 10/04/2012 (firmware 1.11.5.5 + mfg 1.5.0.1) - Part Number (B98-00XUXXE2110505 + B98-00XUXXG2050001)
 Old Part Number B98-00XUXXE2110504 is replaced by B98-00XUXXE2110505.
 1. Resolve the issue "the secondary expander can not set T1, T2, and alarm (critical) threshold into Enclosure".
- 09/21/2012 (firmware 1.11.5.4 + mfg 1.5.0.1)
 1. Resolve temperature setting for 3U16/4U24 hot-swappable backplane.
- 05/17/2012 (firmware 1.11.5.3 + mfg 1.5.0.1)
 1. Resolve the fan failure occasionally.
- 05/11/2012 (firmware 1.11.5.2 + mfg 1.5.0.1)
 1. Support 2U24 hot-swappable backplane only.

Definition of the visual LED indicators (blue and red) associated with a disk drive

Host Control Bit	Blue LED	Red LED
OK	ON	OFF
RSVD DEVICE	ON	OFF
HOT SPARE	ON	OFF
CONS CHECK	ON	Fast blink
IN CRIT ARRAY	ON	Slow blink
IN FAILED ARRAY	ON	Slow blink
REBUILD/REMAP	ON	Fast blink
R/R ABORT	ON	Slow blink
ACTIVE	ON	OFF
DO NOT REMOVE	ON	OFF
MISSING	ON	ON
INSERT	ON	Slow blink
REMOVE	ON	Slow blink
IDENT	Slow blink	OFF
FAULT	ON	ON
DEVICE OFF	ON	OFF

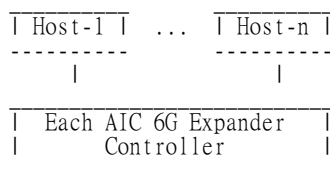
Supported Configuration





Most 3G Expanders don't support T10 zoning.

(4)



To have multiple host access support (the host number can be up to the number of wide ports on each AIC 6G Expander Controller), only the following drives are supported for shared access:

1. SAS drive
2. SATA drive with an interposer which provides SATA-to-SAS conversion

Unsupported Configuration

1. This only applies to the enclosure which supports dual AIC 6G Expander Controllers.
The enclosure with dual AIC 6G Expander Controllers attached is inserted with a SATA drive without any interposer. It will cause the drive LEDs behaves incorrect.

Command Line Interface Operation

1. How to enable/disable T10 zoning

The default T10 zoning configuration is off.

- (A) Check the current zoning state

```
cmd> phyzone state
Zoning is OFF
```

- (B) Enable zoning

```
cmd> phyzone on
```

- (C) Disable zoning

```
cmd> phyzone off
```

2. How to configure T10 zoning

After enabling T10 zoning, three predefined groups are Group1, Group8, and Group9. Each PHY should be in one of the three group, and all PHYs in a wide port should be in the same group. Each PHY in Group1 can access any PHY in other groups, and vice versa. Each PHY in Group8 cannot access any PHY in Group9, and vice versa.

The default configuration, which allows two wide ports can access all drives, follows.

- (A) PHY0 - PHY3 for the UP wide port (the first port) : Group8
- (B) PHY4 - PHY7 for the UP/DOWN wide port (the second port) : Group1
- (C) PHY8 - PHY11 for the third port if available : Group1
- (D) PHY12 - PHY35 for drive : Group1

The command syntax is "phyzone phy_index group". The following example shows how to setup one drive accessed only the first port and another drive accessed only by the second port.

- Step 1: Read the current group for PHY4

```
cmd> phyzone 4
Phy 4 for Zone Group 1
```

- Step 2: Assign the second port (PHY4 - PHY7) for Group9

```
cmd> phyzone 4 9
cmd> phyzone 5 9
cmd> phyzone 6 9
cmd> phyzone 7 9
```

- Step 3: Assign the drive on PHY12 to be accessed only by the first port instead of the second port

```
cmd> phyzone 12 8
```

Step 4: Assign the drive on PHY13 to be accessed only by the second port instead of the first port
cmd> phyzone 13 9

Step 5: Reset

3. How to get all revisions in AIC SAS 6G Expander

(A) Expander firmware revision

cmd> rev

(B) Expander configuration revision

cmd> showmfg

(C) Microchip firmware for managing sensors

cmd> sensor

4. How to configure temperature sensor

Four temperature settings in Celsius are T1, T2, warning threshold, and alarm (critical) threshold.

(A) Get the current temperature settings

cmd> temperature

Temperature in Celsius (t1=20 C, t2=55 C, warning=50 C, alarm=55 C)

(B) Set temperature with new T1=18 C, T2=52 C, warning threshold=48 C, and alarm threshold=54 C. The new setting will take effect after reset.

cmd> temperature 18 52 48 54

cmd> reset