

# HSIT Connector Saver Board SAS1

## Users Guide

Version A  
March 27, 2012



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### i. Revision History

| Revision | ECO#   | Date    | Description     |
|----------|--------|---------|-----------------|
| A        | C01074 | 3/27/12 | Initial Release |
|          |        |         |                 |

### ii. Reference Documents

| Document # | Title | Author |
|------------|-------|--------|
| -          | -     | -      |

### iii. Approval

| Approver       | Title                    | Approval Date |
|----------------|--------------------------|---------------|
| Joshua Sneller | Hardware Design Engineer | 3/14/12       |

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## 1 Connections

- MiniSAS-HD to MiniSAS-4x, x4 @ 6Gbps

## 2 Lines Tested

### 2.1 High Speed Lines

|                                  |       |
|----------------------------------|-------|
| MiniSAS-HD, MiniSAS-4x           |       |
| 8 Lanes (TX0-3, both directions) | 6Gbps |

### 2.2 TX/RX Parameters

The HSIT is configured to output a 600mV nominal CJT Pattern during the testing of the high speed SAS lanes. No emphasis (pre-tap/post-tap) is being used and there is also no equalization for the receiver side. The test is run for 15 seconds.

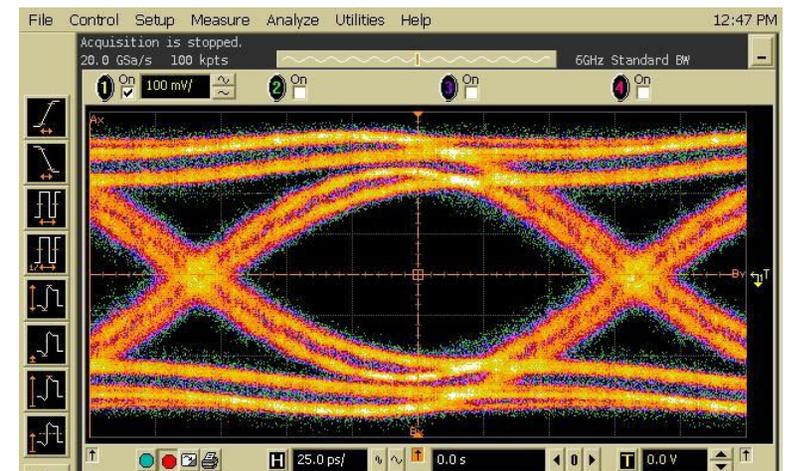
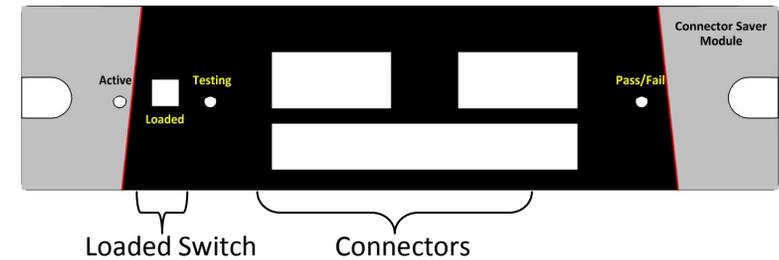


Figure 1 – TX Eye

## 2.3 DC Connections

| DC Connections |                         |
|----------------|-------------------------|
| GND            | DC connection test only |
| Shield GND     | DC connection test only |

## 3 Faceplate



**Figure 2 - Faceplate front view**

- Loaded Switch—press the Loaded Switch after loading a MiniSAS-HD to MiniSAS-4x x4 cable to the device to begin testing.
- Connectors—this Connector Saver Module supports testing of MiniSAS-HD to MiniSAS-4x cables.
- LEDS
  - Active—indicates that the HSIT is powered and ready to be used or is in use.
  - Testing—blinks to indicate an ongoing test.
  - Pass/Fail—blinks red to indicate a failed test and solid green to indicate a passed test.

## 4 Installing the Connector Saver

1. The Connector Saver Module inserts into the front faceplate of the HSIT device.



Figure 3—Connector Saver Module and HSIT device

2. Align the board with the card guides mounted on the enclosure and slide the assembly into the enclosure. Be careful to insert the Connector Saver circuit board (NOT the metal bracket) into the plastic card guides in the HSIT device. (See the figure below.) Failure to insert the Connector Saver correctly can cause damage to the Connector Saver or the HSIT device.
3. Press firmly with both thumbs to cause the connector to click into place.
4. Secure the faceplate using the captive screws on the Connector Saver Faceplate.

**NOTE: Ensure ESD safe practices when handling the Connector Saver device.**

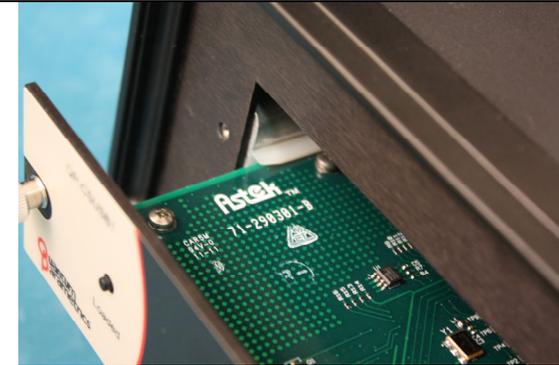


Figure 4 - CSB going into HSIT

## 5 Replacing the Connector Saver Circuit Board

1. Remove the Connector Saver Module by unfastening the captive screws on the faceplate and pulling firmly until the module clicks out of place.
2. Remove the screws attaching the metal bracket and the circuit board as shown in the figures below

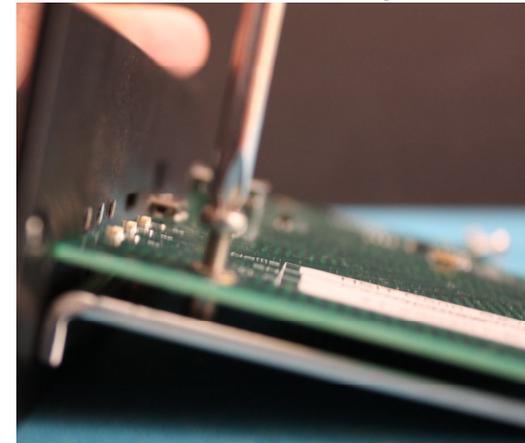
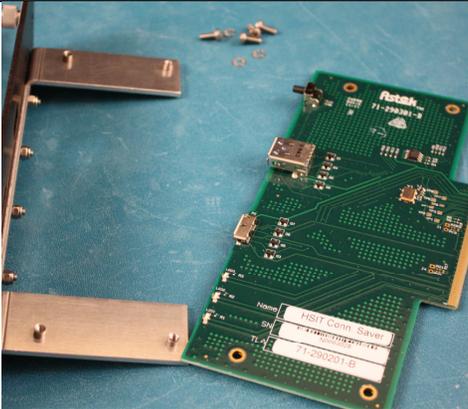


Figure 5 - Removing screws

3. The separate board and bracket should look like this:



**Figure 6 - CSB and Faceplate separated**

4. Place and fasten the new board to the bracket with the name, serial number, and TLA number facing up and the golden connector contacts facing away from the faceplate.
5. Replace the Module into the HSIT device.

## **6 Contacting Astek Corporation**

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