Attendance:

Mr. Jaremy Flake	ATL Technology
Mr. William Martin	Emulex
Mr. Robert H. Nixon	Emulex
Mr. Douglas Wagner	FCI
Ms. Monica Li	Finisar
Mr. Elwood Parsons	Foxconn Electronics
Mr. Mike Fitzpatrick	Fujitsu
Mr. Nathan Hastad	General Dynamics
Mr. Rob Elliott	Hewlett Packard Co.
Mr. Dan Colegrove	Hitachi Global Storage Tech.
Mr. George O. Penokie	IBM Corp.
Mr. Harvey Newman	Infineon Technologies
Dr. Mark Seidel	Intel Corp.
Mr. Joel Silverman	Kawasaki Microelectronics Am
Mr. Dennis Moore	KnowledgeTek, Inc.
Mr. Greg Shogan	LSI Corp.
Mr. Michael Jenkins	LSI Corp.
Mr. John Lohmeyer	LSI Corp.
Mr. Steven Schauer	LSI Corp.
Dr. Jacky Chow	Marvell
Mr. Kevin Witt	Maxim Integrated Products
Mr. Jay Neer	Molex Inc.
Mr. Ken Ferguson	PMC-Sierra
Mr. Rick Hernandez	PMC-Sierra
Mr. Tim Symons	PMC-Sierra
Mr. Joseph Chen	Samsung
Mr. Alvin Cox	Seagate Technology
Mr. Martin Czekalski	Seagate Technology
Mr. Benoit Mercier	STMicroelectonics, Inc.
Mr. Stephen Finch	STMicroelectronics, Inc.
Dr. Sanjay Sethi	Toshiba
Mr. Dan Gorenc	Tyco Electronics
Mr. Scott Shuey	Tyco Electronics
Mr. Mahbubul Bari	Vitesse Semiconductor
Mr. Mark Evans	Western Digital
Mr. Larry McMillan	Western Digital

37 People Present

Review of documents and proposals:
1   SAS-2 Zero-Length Test Load Characterization (07-013r7) [Olawsky]
2   SAS-2 10 Meter Cable Specification Issues (06-499r7) [Olawsky]
These two items were not reviewed since Barry was not present.

3. New Business:
3.1   Enhanced WDP for 6G SAS (07-365r0) [Jenkins]

LRM/WDP copy write issues has lead LSI to write their own code. The result has the look of StatEye but uses
a captured signal input as the simulation stimulus. FCAL and SAS can use similar code. FCAL does not have
SSC, so this makes it different for SAS and FCAL if the SSC is included in the SAS profile. WDP is a

measurement of the deterministic (ISI). The signal to be input can be captured at the transmitter or after the transmitter and channel.

How much data has to be captured?

Mike will post a new proposal with the information presented. Mahbubul Bari will work with Kevin Witt to supply Mike with a recorded pattern.

Harvey will also contribute as he is working with Agilent and Synthesis Research.

Mike will also check on the availability of the LSI code with regards to IP.

3.2   Molex mini SAS 10-meter cable assembly near-end isolation (07-376r0) [Fromm]

3.3   Mini SAS test fixture description (07-383r0) [Fromm]

Not reviewed since Galen was not present and since these are posted and self-explanatory.

3.4   SAS-2 Comprehensive Stressed Receiver Sensitivity Test (07-380r1) [Witt]

We reviewed Kevin's input on how to implement the link budget for stressed receiver testing. There was considerable discussion about the ISI generator and how it should be defined. Since this is done with real hardware, the delivered signal can be measured at the transmitter and/or after the channel. The after the channel point can be tested to make sure it is stressed enough. Sinusoidal jitter can be added at the source clock as well as SSC to have a common set up for testing receiver jitter tolerance.

5.6   SAS-2 De-emphasis + iPass (07-385r0) [Newman]

Quick review. No update since original presentation on PHY teleconferences.

5.7   SAS-2 10m Cable Results (StatEye v5 Analysis) (07-386r1) [Newman]

Include StatEye link to v5. Concerned over the eye shape and shifting to the left of the zero point. Step resolution seems to influence the right side of the eye. Version 5 now working and available (07-414r0):

Some additional comments (07-415r0).

5.8   SAS-2 6Gbps PHY specification (07-339r5) [Cox]

Performed a page-turner to discuss changes between revisions and new issues. Alvin will make minor editorial changes plus do additional work regarding SSC. See meeting schedule regarding additional comments for completion of this proposal.

6. Review of Recommendations

No proposals were voted on for recommendation to the plenary for inclusion in SAS2.

7. Meeting Schedule

Conference calls on Thursday at 10:00 am Central time.

Next conference call: 9/27/07

Toll Free Dial in Number: (877)810-9442
International Access/Caller Paid Dial In Number: (636)651-3190
PARTICIPANT CODE: 3243413

Webex information:
https://seagate.webex.com/seagate
Topic: SAS-2 PHY WG
Date: Thursday
Time: 10:00 am, Central Daylight Time (GMT -05:00, Chicago)

Meeting number: 826 515 680
Meeting password: 6gbpsSAS

Goal is for completion of the PHY spec for letter ballot of SAS 2 following the November plenary. There will be no face-to-face due to only 6 weeks between plenary meetings. Specific areas identified for needing completion:

1. Transmitter common mode measurements to validate the currently proposed chart. [Anyone with silicon to test]
2. Description of SSC profile allowed discontinuities. [Hernandez]
3. Zero length test load proposal. [Olawsky} Should be reviewed by all to determine if ready for inclusion.
4. Should the cable specification be done by common mode requirements or fall under channel simulation? [All]
5. Define the delivered signal characteristics for physical receiver testing. Include 0.1UI sinusoidal jitter to do the equivalent of receiver tolerance testing. [Bari, Jenkins, Newman, Witt]
6. Refine/provide status on simulation technology. [Jenkins, Newman]
7. Proposal for JTF calibration of JMD's [Cox]

Anyone that can help in these specific areas is invited and encouraged to participate. Also please review 07-339 and provide any input to Alvin Cox or the T10 reflector.

8. Adjournment 4:42 pm