

1. The meeting opened at 9:07 am September 14, 2004.

2. Attendance:

Name	S	Organization
Mr. Paul von Stamwitz	AV	AMCC
Mr. James A. Lott, Jr.	P	Dallas Semiconductor
Mr. Kevin Marks	P	Dell, Inc.
Mr. Doug Wagner	P	FCI Electronics
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Barry Olawsky	V	Hewlett Packard Co.
Mr. Bill Ham	V	Hewlett Packard Co.
Mr. Zane Daggett	P	Hitachi Cable Manchester
Mr. Bill Bissonette	V	Intel Corp.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Bill Lye	A	PMC-Sierra
Mr. Alvin Cox	V	Seagate Technology
Mr. Paul D. Aloisi	P	Texas Instruments
Mr. Dan Gorenc	A#	Tyco Electronics
Ms. Ashlie Fan	P	Tyco Electronics
Mr. Don Schulte	V	Vitesse

17 People Present

Status Key: P - Principal
 A,A# - Alternate
 AV - Advisory Member
 L - Liaison
 V - Visitor

3. Agenda:

3.1. 03-240r4 SAS-1.1 Internal wide connector and cable (Rob Elliott)
<http://www.t10.org/ftp/t10/document.03/03-240r5.pdf>

Lengthy discussion resulted in several editorial changes as well as a technical correction to table 1000 so that pin numbers and signal names match the number of lanes supported. Pin numbering will reflect the SFF-8484 specification as determined during the 9/15 SFF SSWG. The SAS PHY working group unanimously recommends (with 1 abstain) acceptance of this revised proposal to the T10 plenary.

3.2. TCTF editorial update (Barry Olawsky)

Terminology used in the Transmitter Characteristics section were discussed. The references to TCTF and the test load need clarification. Signs need to be consistent and the S21 value needs a note to state that the bars around it indicate magnitude rather than absolute value. Barry took several notes during the discussion and will draft a proposal to edit the section.

3.3. 04-195r4 SAS-1.1 Internal Wide Connector/Cable Electrical Requirements (Barry Olawsky)

<http://www.t10.org/ftp/t10/document.04/04-195r4.pdf>

Barry will add text to define differential pairs 1 – 8 and what is meant by adjacent pairs. Crosstalk numbers in the table will change to negative values. The SAS PHY working group unanimously recommends acceptance of the revised proposal to the T10 plenary.

3.4. Update to Section 5 based on SATA 1,5 and 3,0 Gbps performance modeling (Bill Bissonette)

Bill presented measurement data concerning SATA signal levels when a TCTF is used for loss. Results indicate that the value presently in the table for 1,5 Gbps is most likely a valid number and that 3Gbps will be challenging. Bill was looking for methodology verification and will provide additional data with a larger jitter influence in future SAS PHY WG conference calls.

4. New items

4.1 Definitions and acronyms – (Ham)

Reviewed a draft for improved and additional definitions for SAS 1.1. The update was edited by the working group and will be posted as a proposal in a few days. Alvin will help Bill with preparation of the proposal.

4.2 PHY section comments and Jitter updates – (Ham)

Bill Ham provided a few comments for Section 5 transmitter and receiver specifications along with updates for the jitter section based on MJSQ.

5. Recommendations

The SAS PHY working group recommends per the votes indicated that the T10 plenary approve the following proposals for inclusion in SAS 1.1:

03/03-240r5 with edits	Unanimous (1 abstain)
04/04-195r4 with edits	Unanimous

6. Schedule

Bi-weekly teleconferences will be conducted starting September 30, 2004

Next call:

Date: Thursday, September 30, 2004

Time: 10:00 am, Central Daylight Time (GMT -05:00, Chicago)

All Participants should use the following information to reach the conference call:

Toll Free Dial in Number: (866) 279-4742

International Access/Caller Paid Dial In Number: (309) 229-0118

PARTICIPANT CODE: 3243413

WEBEX information:

url: seagate.webex.com (no www)

Topic: SAS PHY WG

Date: Thursday, September 30, 2004

Time: 10:00 am, Central Daylight Time (GMT -05:00, Chicago)

Meeting number: 825549498

Meeting password: section5

6. Adjournment:

The meeting adjourned at 6:27 pm September 14, 2004.