

Attendance:

Mr. Ziad Matni	Agere Systems
Mr. Ken Paist	Agere Systems
Mr. Paul von Stamwitz	AMCC
Mr. Minchuan Wang	Dell
Mr. Douglas Wagner	FCI
Mr. Dan Colegrove	HGST
Mr. Rob Elliott	Hewlett Packard Co.
Mr. Barry Olawsky	Hewlett Packard Co.
Mr. Harvey Newman	Infineon Technologies
Dr. Mark Seidel	Intel Corp.
Mr. Michael Jenkins	LSI Logic Corp.
Mr. Richard Uber	Maxtor Corp.
Mr. Galen Fromm	Molex Inc.
Mr. Yuriy Greshishchev	PMC-Sierra
Mr. Alvin Cox	Seagate Technology
Mr. Doug Loree	Toshiba

16 People Present

Agenda:

1. From Rob Elliott:

<http://www.t10.org/ftp/t10/document.06/06-169r0.pdf>

04-370r3, which first appeared in sas1r08, messed up the DJ footnotes in table 56 - Receiver device jitter tolerance. Footnote f is supposed to be for 1,5 Gbps; footnote g for 3 Gbps. The table shows footnote f for IR and footnote g for CR.

I wrote a correction proposal 06-169r0 since that table may not survive for long in its current form in SAS-2; it'll be good to have a record of the correction. We can apply the correction to the ISO version of SAS-1.1. I don't think it warrants an amendment to the ANSI version of SAS-1.1.

Unanimous approval. Will present at the next face-to-face and then forward recommendation to plenary.

2. Fixed and Free connector designation:

Current SAS designation has fixed and free related to connector type (receptacle and plug, respectively) rather than primary application. From SAS 1.1 and SAS 2:

5 Physical layer

5.1 Physical layer overview

The physical layer defines:

- a) passive interconnect (e.g., connectors and cable assemblies); and
- b) transmitter and receiver device electrical characteristics.

Within this standard, references to connector gender use the terms plug and receptacle as equivalent to the terms free and fixed, respectively, that may be used in the references that define the connectors. Fixed and free terminology has no relationship to the application of the connector.

Recommend that fixed and free be removed from the SFF documents. Fixed and free will be eliminated from SAS documents only if the SFF specifications remove it. Transition of SFF specifications to EIA versions has not been very good. Don't think that the broken logic of fixed and free is worth maintaining when the connector description of plug and receptacle is a complete description in itself. Alvin to notify Dal concerning this issue.

3. Comparison of Equalization Schemes for 6Gbps SAS Channels (06-049) [Caroselli, Malipatil]

Postponed to next call

<http://www.t10.org/ftp/t10/document.06/06-049r1.pdf>

The LSI presentation looks at peak vertical amplitude only, rather than width of the eye also. Yuriy will run simulations to show how number of taps increases width of eye opening.

4. Spread spectrum clocking

HP (Barry) to provide more data.

Common mode cannot be eliminated due to multiple factors.

Down-spreading versus symmetric. Yuriy to present information.

Fixed value for range? Not a popular idea.

System clock impact? Harvey to post a few notes on this.

Backwards compatibility issues.

Alvin has updated the considerations document to define the "all or none" statement.

<http://www.t10.org/ftp/t10/document.06/06-129r1.pdf>

5. Continued discussion on 6Gbps specification elements

TCTF definition? Rob and Barry to describe some issues that may lead to interoperability problems.

Common mode?

Return loss?

SRN?

6. Schedule:

Next conference call April 7, 2006

NOTE THAT THIS CALL IS ON FRIDAY!

PARTICIPANT INFORMATION:

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

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

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

PARTICIPANT CODE: 3243413

<https://seagate.webex.com/seagate>

Topic: SAS PHY working group

Date: Friday April 7, 2006

Time: 10:00 am, Central Standard Time (GMT -06:00, Chicago)

Meeting number: 822 135 571

Meeting password: 10meter

Primary agenda for 4/7: Items 3 and 4 above plus TCTF information.