

To: T10 Membership T10/03-062r0
From: Alvin Cox
Subject: SAS PHY working group minutes, January 13-14, 2003

Meeting was called to order 1:35 pm on Monday 1/13/02.

Attendance:

The following were present for all or part of the meeting:

Richard McMillan	Adaptec, Inc.
James Lott, Jr.	Dallas Semiconductor
Douglas Wagner	FCI
William Ham	HP
Barry Olawsky	HP
Robert Elliott	HP
Terry Enright	Honda Connectors
Richard Beckett	Intel
Mark Seidel	Intel
Russ Brown	Maxtor Corp.
Henry Kuo	Qlogic Corp.
Alvin Cox	Seagate
Allen Kramer	Seagate
Vit Novak	Sun Microsystems, Inc.

14 people present.

Agenda:

1. Clarification of the compliance test load graphs to define the ISI portion.

Explanation behind letter ballot comments from Maxtor discussed. Comments accepted with minor changes. Discussion on the TCTL is not complete, as the flat tail shown in the associated characteristic graphs is not explained.

2. Rise time for the 1.5 Gbps rate

Comment resolution: Rise/fall time for both 1,5 and 3,0 to be 67ps.

3. Jitter definitions

Comment resolution: For deterministic jitter, use definition currently in MJSQ letter ballot.

4. Letter ballot comment resolution:

Chapter 3

3.1.24 MXO deterministic jitter - see item 3 above.

3.1.128 <many> comments on SSC

Delete "(SSC)" abbreviation but keep a definition since the term is used within the specification.

Change definition to:

The technique of modulating the operating frequency of a transmitted signal to reduce the measured peak amplitude of radiated emissions.

Chapter 5 (Physical)

Dell #1. Key for 4X external to distinguish from SATA JBODS

REJECT

Dell #2. Is key preventing SAS drives from use in SATA backplanes a problem with mechanical lever forces?

REJECT

Intel: use lowercase rho (looks like italics p) rather than uppercase rho for the reflection coefficient

Accept

5.6 SEG LED current limiting shall be external, not "may be".

Accept. Several comments addressed in this section. Section name changed to READY LED signal, characteristic table reorganized, editorial comments included, target device shall support the signal, current limiting and LED using this signal shall not be on the target device.

5.7.2 IBM drop use of BER; it is too conservative to be meaningful BER to be kept. Issue resolved during joint meeting with Protocol group.

5.7.2 IBM document cable lengths like in SPI-5

Text added to give an idea of possible length without equalization, etc. Issue resolved during joint meeting with Protocol group.

5.7.4 SEG drop minimum rise time at 1.5 Gbps

See item 2 above.

5.7.7 SEG jitter tolerance notes b and d wording

Accept. Combine wording of each pair of notes. Call out frequency range part of notes as separate notes and flag them on the parameter/speed.

Chapter 6 (Phy)

- 6.5 use of "envelope" term

Reject. Text correct as is.

5. New business

None.

6. Meeting schedule

Face-to-face next T10 meeting starts 9 am Monday morning unless otherwise posted. See meeting map. May start in the afternoon depending on workload.

Conference calls scheduled for Friday 1/17/03 and 1/24/03, 2:00 pm to 4:00 pm CST to review remaining current letter ballot issues.

PARTICIPANT INFORMATION:

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:

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

Topic: SAS PHY comment resolution

Date: Friday, January 17, 2003

Time: 1:45 pm, Central Standard Time (GMT -06:00, Chicago)

Meeting number: 755159197

Meeting password: comments

Topic: SAS PHY comment resolution

Date: Friday, January 24, 2003

Time: 1:45 pm, Central Standard Time (GMT -06:00, Chicago)

Meeting number: 751724950

Meeting password: resolution

7. Adjournment

The meeting adjourned at 5:00pm Tuesday January 14, 2003.