

1. Opening Remarks

The meeting opened at 9:02 am.

2. Approval of Agenda

All automated new items were arranged in their respective positions in the previously posted agenda.

3. Attendance and Membership

Attendees introduced themselves.

Mr. Ken Paist	Agere Systems
Mr. Paul von Stamwitz	AMCC
Mr. Mike Yeager	Dallas Semiconductor
Mr. Kevin Marks	Dell, Inc.
Mr. Mickey Felton	EMC Corp.
Mr. Ramez Rizk	Emulex
Mr. Douglas Wagner	FCI
Mr. David Freeman	Finisar
Mr. Geoffrey Hibbert	Finisar
Ms. Kiranmai Vedanabhatla	Finisar Corporation
Mr. Elwood Parsons	Foxconn Electronics
Mr. Mike Fitzpatrick	Fujitsu
Mr. Rob Elliott	Hewlett Packard Co.
Mr. Barry Olawsky	Hewlett Packard Co.
Mr. Dan Colegrove	Hitachi Global Storage Tech.
Mr. George O. Penokie	IBM Corp.
Mr. Harvey Newman	Infineon Technologies
Mrs. Vicky Duerk	Intel
Mr. Martin Massucci	Intel
Dr. Mark Seidel	Intel Corp.
Mr. Pak Seto	Intel Corp.
Mr. Joel Silverman	Kawasaki Microelectronics Am
Mr. Dennis Moore	KnowledgeTek, Inc.
Mr. Graeme Weston-Lewis	LSI Logic
Mr. Praveen Viraraghavan	LSI Logic Corp
Mr. Brian Day	LSI Logic Corp.
Mr. Michael Jenkins	LSI Logic Corp.
Mr. Paul Wassenberg	Marvell Semiconductor, Inc.
Mr. Edward Cady	Meritec
Mr. Greg Rice	Mindspeed Technologies
Mr. Galen Fromm	Molex Inc.
Mr. Hock Seow	NEC Electronics America, Inc
Mr. Michael Hopgood	Nvidia Corp.
Mr. Rick Hernandez	PMC-Sierra
Mr. Alvin Cox	Seagate Technology
Mr. Stephen Finch	STMicroelectronics, Inc.
Mr. Doug Loree	Toshiba
Ms. Ashlie Fan	TycoElectronics
Mr. Dan Gorenc	TycoElectronics
Mr. Kevin Witt	Vitesse Semiconductor
Mr. Larry McMillan	Western Digital
Mr. Jeff Williams	Xiotech Corp.

4. Review of documents and proposals

4.1 SAS-2 COMWAKE detection requirements ([06-464r0](#)) [Cox]

Approved 19/0/1

4.2 SAS-2 OOB transmission requirements ([06-463r2](#)) [Cox]

Recommended as edited 17/0/3

(06-463r3 has been posted.) <http://www.t10.org/ftp/t10/document.06/06-463r3.pdf>

4.3 10 Meter Cable Specification Issues (06-499r0) [Olawsky]

<http://www.t10.org/ftp/t10/document.06/06-499r0.pdf>

Some concerns:

Maximum insertion loss – TCTF mask is not a good approach.

Maximum intra-pair skew – Is this required and can it be met?

Should a channel specification be used?

Proposal to be posted. This is an initial look with more details to come later.

4.4 EMI Considerations for SAS-2 ([06-483r0](#)) [Marks, Jones, and Hailey]

Outlines considerations for development of the 6G electrical specification. This is not an exhaustive list, but rather a primer of considerations as the phy electrical specification is developed.

4.5 Proposal for 6G SAS TX Specification via Reference Receiver ([06-491r0](#)) [Jenkins]

Should TX de-emphasis be specified and if so, how?

Indicated that the receiver equalization may have better compensation than de-emphasis. Neither analysis using de-emphasis or no de-emphasis included crosstalk.

4.6 SAS-2 Electrical Specification Proposal ([06-496r0](#)) [Witt]

May want to define the zero length test load as having some amount of loss.

Transmitter device return loss in proposal is very close to what is currently in FCAL. Check the FCAL version.

Does the channel need to provide 10e-15 BER with the reference transmitter and receiver? STA indicated 10e-12 BER as the need and 10e-15 BER as desired. This number was associated with the simulation values of the reference channel. Needs additional discussion.

Jitter: May need to change to a second order roll-off instead of the “effects of a single pole high-pass frequency-weighting function that progressively attenuates jitter at 20 dB/decade below a frequency of ((bit rate) / 1 667)” to minimize the effects of SSC.

Should we add a short reach mode? Use SATA numbers?

This proposal is a starting place for specification development.

4.7 SAS-2 Modifications to the SAS Speed Negotiation ([06-324r8](#)) [Finch, Wassal]

Continued to review and update this proposal. The number of changes did not allow it to be voted on for recommendation to the plenary. Additional editing is scheduled for Thursday afternoon with a review session to follow on future conference calls.

5. New Business

None.

6. Review of Recommendations

6.1 SAS-2 COMWAKE detection requirements ([06-464r0](#)) [Cox]
Recommended 19/0/1

6.2 SAS-2 OOB transmission requirements ([06-463r2](#)) [Cox]
Recommended as edited 17/0/3

7. Meeting Schedule

Weekly teleconferences scheduled for Thursdays at 10 am CST:

PARTICIPANT INFORMATION:

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

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

PARTICIPANT CODE: 3243413

Webex information:

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

Topic: SAS-2 PHY WG

Date: Thursday

Time: 10:00 am, Central Standard Time

Meeting number: 826 515 680

Meeting password: 6gbpsSAS

No call on 11/23 or 12/28.

8. Adjournment

The meeting adjourned at 5:23 pm.