

Minutes of SAS PHY working group meeting May 3, 2004
(T10/04-139r0)

1. Introductions

The meeting opened at 9:05 am, Monday May 3, 2004.

SAS Physical Working Group

Name	S	Organization	Electronic Mail Address
Mr. Tim Symons	P	Adapteq, Inc.	Timothy_Symons@adapteq.com
Mr. Gunter Knestele	V	CERTANCE	Gunter.Knestele@certance.com
Mr. James A. Lott, Jr.	P	Dallas Semiconductor	jim.lott@dalsemi.com
Mr. Douglas Wagner	P	FCI	dwagner@fciconnect.com
Mr. Elwood Parsons	AV	Foxconn Electronics	elwood.parsons@foxconn.com
Mr. Steven Fairchild	V	Hewlett Packard Co.	Steve.Fairchild@hp.com
Dr. William Ham	A	Hewlett Packard Co.	bill_ham@ix.netcom.com
Mr. Mark Seidel	V	Intel Corp.	mark.n.seidel@intel.com
Mr. Russ Brown	V	Maxtor Corp.	russ_brown@maxtor.com
Mr. Martin Czekalski	A	Maxtor Corp.	marty_czekalski@maxtor.com
Mr. Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
Mr. Yuriy Greshishchev	AV	PMC-Sierra	Yuriy_Greshishchev@pmc-sierra.com
Mr. Bill Lye	AV	PMC-Sierra	lye@pmc-sierra.com
Ms. Rachelle Trent	AV	PMC-Sierra	rachelle_trent@pmc-sierra.com
Mr. Alvin Cox	V	Seagate Technology	Alvin.Cox@seagate.com
Mr. Robert Kando	A	Texas Instruments	Robert_Kando@ti.com
Mr. Ron Mathews	P	UNISYS Corporation	Ronald.mathews@unisys.com

17 People Present

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

2. Approval of agenda

Agenda shuffled as indicated below.

3. Discussion items

3.1 Review of FC-MJSQ and its applicability to SAS [Ham]

The SAS PHY WG needs to review FC-MJSQ. Bill Ham will make a proposal to add wording as required to incorporate this methodology and references into the SAS 1.1. Acronyms and definitions need to be consistent between the two specifications and this will be considered as part of the proposal.

3.2 Determination if CJTPAT is being used properly in SAS [Ham]

Add picture and editorial changes to Annex A to clarify text regarding transmission of CJTPAT. Bill Ham to draft proposal.

3.3 SAS-1.1 OOB Data Rate @ 1,5G only [Lye/Carr]

<http://www.t10.org/ftp/t10/document.04/04-128r0.pdf>

Proposal requires minor editorial changes. Proposal passed 6 Y, 2 N, 3 A
04-128r1 sent for posting.

3.4 Compliance channel tweaks [Jenkins]

Alvin to write proposal to remove mathematical compliance channel option. 8/2/3 04-150r0
Include compliance channel equation changes proposed by Jenkins. Background documents 04-147r0, 04-148

3.5 Use of 3.3V on SAS devices [Cox]

Shall SAS devices not require 3.3V for operation? Moderate discussion since this has been a recent topic in SATA. Straw pole to not require 3.3V on SAS devices: 1Y, 5N. Dropped from consideration due to concern for future devices.

3.6 External multilane electrical characteristics:

Comments by Bill Gintz on system margins:
Should consider return loss specification.

Current status of SATA electrical proposal: Work not complete as of 5/3/04. Desire that specification be equivalent.

3.7 SAS-1.1 Miscellaneous physical layer changes (04-131)[Elliott]

<http://www.t10.org/ftp/t10/document.04/04-131r0.pdf>

Out of time. Not discussed.

3.8 Internal multi-lane:

Define electrical characteristics and review text proposal [Olawsky/Miller/Elliott]

<http://www.t10.org/ftp/t10/document.03/03-240r2.pdf>

Out of time. Not discussed.

3.9 Add isometric drawings for connectors/cables? [Cox]

Out of time. Not discussed.

4. New items

5. Next meeting requirements

Bi-weekly calls starting in 2 weeks on Thursdays (5/20, 10am CDT). Cox will post agenda and meeting information.

6. Review of action items

6.1 Bill Ham will write a proposal to add wording as required to incorporate MJSQ methodology and references into the SAS 1.1. Acronyms and definitions will be updated as required.

6.2 Bill Ham to draft a proposal to add a figure and corresponding editorial changes to Annex A for clarification of CJTPAT.

6.3 Cox to work with Lye on 04-128r1.

6.4 Cox to post TCTF update 04-150r0.

7. Recommendations:

SAS PHY WG recommends addition of 04-128r1 and 04-150r0 to the SAS 1.1 specification.

8. Adjournment: 6:55 pm 5/3/2004.