Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Date: September 10, 2002 Reply to: John Lohmeyer

To: T10 Membership

From: Ralph Weber & John Lohmeyer

Subject: Parallel SCSI Working Group Meeting -- September 9, 2002

Minneapolis, MN

Agenda

- 1. Opening Remarks
- 2. Approval of Agenda
- 3. Attendance and Membership
- 4. SPI-5 Topics
 - 4.1 SPI-5 Testing [Manildi]
 - 4.2 Ultra 640 input offset compensation and training pattern (02-266) [Penokie]
 - 4.3 Clock-to-Data and Duty Cycle Timings (02-268) [Penokie]
 - 4.4 SPI-5 Working Draft Review [Penokie]
- 5. Old Business
- 6. New Business
 - 6.1 Proposed modifications to SPI-5 timing clause (02-339) [Evans]
 - 6.2 Proposed changes for SPI-5 (02-325) [Aloisi]
 - 6.3 Interconnect specifications (discussion) [Ham]
- 7. Review of Recommendations to the Plenary
- 8. Meeting Schedule
- 9. Adjournment

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:05 a.m., Monday, September 9, 2002. He thanked Dave Peterson of Cisco Systems for hosting the meeting.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated.

2. Approval of Agenda

The draft agenda was approved with the following additions and changes:

6.3 Interconnect specifications (discussion) [Ham]

No items were added/revised during the course of the meeting.

3. Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for T10 membership. Working group meetings are open to any person or organization directly and materially affected by T10's scope of work. The following people attended the meeting:

Name		Organization	
Mr. Ron Roberts		Adaptec, Inc.	Ron_Roberts@adaptec.com
Mr. James A. Lott, Jr.	Α	Dallas Semiconductor	jim.lott@dalsemi.com
Mr. Ralph O. Weber	Ρ	ENDL Texas	roweber@acm.org
Mr. Rob Elliott	Р	Hewlett Packard Co.	Elliott@hp.com
Dr. William Ham	Α	Hewlett Packard Co.	bill_ham@ix.netcom.com
Mr. Hitoshi Ogawa	ΑV	Hitachi Ltd.	h-ogawa@gm.str.hitachi.
			co.jp
Mr. Terumi Takashi	V	Hitachi Ltd.	t-takasi@gm.str.hitachi.
			co.jp
Mr. George O. Penokie	Ρ	IBM / Tivoli Systems	gop@us.ibm.com
Mr. Dan Colegrove	V	IBM Corp.	dcolegro@us.ibm.com
Mr. John Lohmeyer	Ρ	LSI Logic Corp.	lohmeyer@t10.org
Mr. William Petty	Α	LSI Logic Corp.	william.petty@lsil.com
Mr. Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
Mr. Russ Brown	V	Maxtor Corp.	russ_brown@maxtor.com
Ms. Emily Hill	Ρ	Microsoft Corp.	emhill@microsoft.com
Mr. Rob Haydt	Α	Microsoft Corp.	robhay@microsoft.com
Mr. Dan Dawiedczyk	AV	Molex Inc.	ggriessler@molex.com
Mr. Charles Monia	Р	Nishan Systems Inc.	cmonia@nishansystems.com
Mr. Henry Kuo	V	QLogic Corp.	henry.kuo@qlogic.com
Mr. Gerald Houlder	Ρ	Seagate Technology	gerry_houlder@seagate.com
Mr. Vit Novak	P	Sun Microsystems, Inc.	vit.novak@sun.com
Mr. Paul D. Aloisi	Ρ	Texas Instruments	Paul_Aloisi@ti.com
21 People Present			
Status Key: P - P:	rin	cipal	
A,A# - A	lte	rnate	
AV – Ad	dvi	sory Member	
L - L	iai	son	

4. SPI-5 Topics

4.1 SPI-5 Testing [Manildi]

In the absence of Bruce Manildi, Gerry Houlder agreed that this item should be dropped from future agendas.

4.2 Ultra 640 input offset compensation and training pattern (02-266) [Penokie]

George Penokie requested that this topic be removed from future agendas.

4.3 Clock-to-Data and Duty Cycle Timings (02-268) [Penokie]

- Visitor

George Penokie requested that this topic be removed from future agendas.

4.4 SPI-5 Working Draft Review [Penokie]

George Penokie stated that only one editor's comment remains in SPI-5 and Paul's proposal (see item 6.2) addresses that comment. Bill Ham expressed concerns that the tables in Paul's proposal were still too liberal, but several other members of the group disagreed strenuously.

As stated last time, a letter ballot on forwarding SPI-5 to first public review is expected to start later in September.

5. Old Business

No old business was brought to the meeting for consideration.

6. New Business

6.1 Proposed modifications to SPI-5 timing clause (02-339) [Evans]

Russ Brown proposed a couple of corrections to the timing budget section as well as a suggesting that the timing budget table be rearranged to clarify relationships between the values (02-339r0). The group requested changes in the proposal.

Russ Brown moved that 02-339r1 (r0 as modified) be recommended for inclusion in SPI-5. Paul Aloisi seconded the motion. In the absence of any objections, the motion passed unanimously.

6.2 Proposed changes for SPI-5 (02-325) [Aloisi]

Paul Aloisi presented a proposal to update and correct the termination specifications in SPI-5. Paul noted that critical changes had been omitted from the proposal and presented those changes. The group requested further revisions in the proposal.

Paul Aloisi moved that 02-235r1 (r0 as revised) be recommended for inclusion in SPI-5. Bill Ham seconded the motion. In the absence of any objections, the motion passed unanimously.

6.3 Interconnect specifications (discussion) [Ham]

Bill Ham asked the group to consider some SPI-5 issues raised by PIP revision 3. The group discussed interconnect issues as they relate to SPI-5, signal quality, how to perform the testing described in PIP, and related issues.

Bill raised the issue of SPI-5 specifying an eye opening. Russ Brown stated the opinion that the eye opening specified in SPI-5 has value in implementations that his company has seen. Bill noted that the eye opening could be closed and receivers can still interpret the signal. Russ responded that having some opening is good guidance and leaves room for bad implementations.

Discussion turned to the specification of a transfer function in SPI-5. Bill surfaced several reasons for having transfer functions in SPI-5. Bill proposed that one of the interface manufacturers bring a transfer function proposal to the group.

Russ Brown presented several reasons why the eye is open and how the margin values written into SPI-5 were derived. Bill agreed that no changes were necessary.

7. Review of Recommendations to the Plenary

Ralph Weber noted that the following recommendations have been made to the T10 plenary:

Proposed modifications to SPI-5 timing clause (02-339r1) [Evans] {r0 as revised, unanimous} Proposed changes for SPI-5 (02-325r1) [Aloisi] {r0 as revised, unanimous}

8. Meeting Schedule

The next meeting of the Parallel SCSI Working Group will be Monday November 4, 2002 commencing at 9:00 a.m. in Huntington Beach, CA at the Hilton Waterfront Beach Hotel (714-960-7873), hosted by QLogic Corp.

9. Adjournment

The meeting was adjourned at 11:55 a.m. on Monday, September 9, 2002.