Accredited Standards Committee* X3, Information Technology

X3T10.1/96a171r0

Date: November 3,

1996

Project: Ref. Doc.:

Doc. No.:

Reply to: Larry Lamers

ljlamers@aol.com

To: Membership of X3T10.1

From: Lawrence Lamers, Chair X3T10.1

Subject: Minutes of X3T10.1 Plenary Meeting #18

Lahaina, HI ---October 30, 1996

Agenda

1. Opening Remarks

- 2. Approval of Agenda
- 3. Attendance and Membership
- 4. Approval of Minutes
- 5. Document Distribution
- 6. Call for Patents
- 7. Review of Old Action Items
- 8. Project Status Reports
 - 8.1 SSA Physical Layer 1 (SSA-PH1)
 - 8.2 SSA Transport Layer 1 (SSA-TL1)
 - 8.3 SSA SCSI-2 Protocol (SSA-S2P)
 - 8.4 SSA Physical Layer 2 (SSA-PH2) [Tsai]
 - 8.5 SSA Transport Layer 2 (SSA-TL2) [Scheible]
 - 8.6 SSA SCSI-3 Protocol (SSA-S3P) [Scheible]
 - 8.7 Project Schedule
- 9. New Business
 - 9.1 Forwarding
 - 9.2 Change of Meeting Schedule
- 10. Liaison Reports
 - 10.1 SSA Industry Association
 - 10.2 SFF Industry Group
- 11. Review of Action Items

- 12. Meeting Schedule
 - 12.1 Meeting Map
 - 12.2 Long term meeting schedule
 - 12.3 Authorization of Working Group Meetings
- 13. Adjournment

Results of Meeting

1. Opening Remarks

The chairman called the meeting to order at 3:00 p.m., Wednesday, October 30, 1996. He thanked Claude Ricks of IBM for arranging and hosting the meeting.

The chair noted that the meeting is conducted under Robert's Rules of Order and the written policies and procedures of X3 and X3T10. The X3 policies and procedures are available at http://www.x3.org. The X3T10 policies and procedures are available from the chairman of X3T10.

The chairman stated that X3 Subgroup Membership forms and the X3T10 Mailing Subscription form were available from the secretary. He said that people should use the X3 forms to insure the X3 Secretariat has the latest membership information. These forms should be mailed directly to the X3 Secretariat. In order to correctly reflect the membership in X3T10.1 a copy of these changes needs to be sent to the chairman.

The X3T10.1 mailing is available in both paper and CD-ROM format. Contact Katrina Gray for subscription information.

The chair noted that all members should receive a billing for service fees from X3 for calendar year 1997 by December 15, 1996. It is incumbent on the members to insure the service fees are paid to retain membership.

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 as amended.

3. Attendance and Membership

The chairman reviewed the membership requirements. The X3 rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings to gain voting rights. He/she may apply for voting membership at the second meeting via a letter to the chairman of X3T10.1. The individual may vote at the second plenary meeting. Attendance at working group meetings does not count toward attendance requirements.

The principal member holds the voting rights, or in their absence an alternate or a designated alternate may vote. A designated alternate is required to present a letter to the chair, from the principal member, designating them as an alternate for the meeting.

Organizations must also pay the X3 Service Fee to maintain membership. Organizations are terminated for non-payment based on a control sheet received from the X3 secretariat.

The Chair said he had sent letters to 2 people from 1 organizations informing them that their membership was in jeopardy due to non-attendance and that their membership would be terminated if they did not attend this meeting. All organizations were represented at this meeting except: Samsung.

These organizations were 'terminated' (that is, the principals were changed to observers, first alternates, if any, were dropped, and any additional alternates were changed to observers). No organizations joined X3T10.1 at the meeting.

The X3T10.1 membership is now at 12 organizations:

<u> </u>
Adaptec
AMP, Inc.
Amphenol Interconnect Products
Digital Equipment Corp.
IBM Corporation
ITT Cannon
Madison Cable
Molex, Inc.
Pathlight Technology
Solution Technology
VLSI Technology, Inc.
Xyratex

Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current X3T10.1 membership list.

Roll call of members with voting privileges:

	Member	Organization		Forwarding Vote
1	Lawrence Lamers	Adaptec	Р	Present
2	Charles Brill	AMP, Inc.	Р	
	Bob Atkinson		Α	
3	Michael Wingard	Amphenol Interconnect Products	Р	
	Bill Mable		Α	
4	Bill Ham	Digital Equipment Corp.	Р	
	Charles Monia		Α	
5	John Scheible	IBM Corporation	Р	Present
	Adge Hawes		Α	Present
	Daniel Tsai		A#	Present
6	Wolfgang Drichelt	ITT Cannon	Р	Present
7	Chuck Grant	Madison Cable	Р	
	Brian Morissette		Α	
	Robert Bellino		A#	
8	Kelly Tenuta	Molex, Inc.	Р	Present
	Gary Manchester		Α	

9	Mark DeWilde	Pathlight Technology	Р	
	Said Rahmani		Α	
	Hank Watson		D	Present
10	David Deming	Solution Technology	Р	Present
	Greg Alvey		Α	
11	Brad Kitson	VLSI Technology, Inc.	Р	Present
12	Neil Edmunds	Xyratex	Р	Present
	Herb Silverman		Α	

4. Approval of Minutes

Document X3T10.1/96a157r0, minutes of plenary meeting #17 were approved.

5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Katrina Gray (kgray@itic.nw.dc.us) at (202) 626-5741.

The 1997 mailing subscription fees for mailing address within the USA are: \$900 for paper, \$300 for CD-ROM. The subscription fee for mailing addresses outside the USA are higher, please contact the X3 secretariat for additional information.

The deadline for the next mailing is noon, Wednesday, November 20, 1996. Documents received after this date will go into a subsequent mailing. Documents must be submitted in electronic form, using Word 6 format. Documents may be submitted by any of the following methods:

- 1) an attachment to an email sent to lilamers@corp.adaptec.com;
- 2) posting to the ftp site, ftp.symbios.com, in the directory /pub/standards/io/X3T10/ temp;
- 3) posting to the BBS, 714-533-7950, in area 33;
- 4) sending a floppy disk to

Lawrence J. Lamers

4611 Park Norton Place

San Jose, CA 95136-2523

Options 2 and 3 also require that you send an email to ljlamers@corp.adaptec.com with the file name of the document. Option 4 requires that you send the package allowing sufficient time for it to be delivered by noon of the deadline date.

The minutes will be distributed to the X3T10-SSA reflector. To be added to the SSA Reflector, send an Email to majordomo@symbios.com with the line 'subscribe x3t10-ssa' in the message body.

The X3 Secretariat maintains a World Wide Web page at http://www.x3.org. The SSA Industry Association maintains a World Wide Web page at http://www.ssaia.org.

The 1996 document register is enclosure (3).

6. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. Annex I contains the ANSI patent policy.

The Chair requested that any participant aware of patents or patent disclosures that may be required to comply with any publications resulting from X3T10.1 projects provide an early disclosure of such patent and offer to license such patents under reasonable and non-discriminatory conditions in accordance with the ANSI Patent Policy. No additional patents were identified by the attendees in response to this call.

- 7. Review of Old Action Items
- 42) John Scheible to generate SSA-PH2 rev 3.
- 43) John Scheible to generate SSA-TL2 rev 3.
- 44) John Scheible to generate SSA-S3P rev 3.
- 45) Larry Lamers to prepare detailed schedule for working drafts following forwarding.
- 8. Project Status Reports
 - 8.1 SSA Physical Layer 1 (SSA-PH1)

The chairman reported that the X3 letter passed and the dpANS is awaiting publication at ANSI.

8.2 SSA Transport Layer 1 (SSA-TL1)

The chairman reported that the X3 letter passed and the dpANS is awaiting publication at ANSI.

8.3 SSA SCSI-2 Protocol (SSA-S2P)

The chairman reported that the X3 letter passed and the dpANS is awaiting publication at ANSI.

8.4 SSA Physical Layer 2 (SSA-PH2) [Tsai]

John Scheible had prepared a proposed working draft. See the working group minutes for details (96a170).

Dave Deming moved and Neil Edmunds seconded that SSA-PH2 rev 3a be accepted as the current working draft for project 1146D. The motion carried 8:0:0:4.

8.5 SSA Transport Layer 2 (SSA-TL2) [Scheible]

John Scheible had prepared a proposed working draft. See the working group minutes for details (96a170).

Dave Deming moved and Neil Edmunds seconded that SSA-TL2 rev 3 be accepted as the current working draft for project 1147D. The motion carried 8:0:0:4.

8.6 SSA SCSI-3 Protocol (SSA-S3P) [Scheible]

John Scheible had prepared a proposed working draft. See the working group minutes for details (96a170).

Dave Deming moved and Neil Edmunds seconded that SSA-S3P rev 3 be accepted as the current working draft for project 1051D. The motion carried 8:0:0:4.

Wolfgang Drichelt moved and Brad Kitson seconded that the recommendations of the working group on changes to SSA-S3P, SSA-TL2, and SSA-PH2 be approved and the technical editor be directed to create revision 4. The motion carried 8:0:0:4.

8.7 Project Schedule

The chair reviewed the project schedule. The chair will request that the X3T10 letter ballot close on January 21, 1997 to facilitate comment resolution. It is expected that the approved standards will be published in 12/97.

9. New Business

9.1 Forwarding

John Scheible moved and Kelly Tenuta seconded that SSA-S3P, project 1051D, revision 3 as modified be forwarded to X3T10 for letter ballot and further processing.

John Scheible moved and Kelly Tenuta seconded that SSA-TL2, project 1147D, revision 3 as modified be forwarded to X3T10 for letter ballot and further processing.

John Scheible moved and Kelly Tenuta seconded that SSA-PH2, project 1146D, revision 3a as modified be forwarded to X3T10 for letter ballot and further processing.

In the absence of objection the three motions were taken as a single role call vote:

	Member	Organization		Forwarding Vote
1	Lawrence Lamers	Adaptec	Р	Yes
2	Charles Brill	AMP, Inc.	Р	Yes*
	Bob Atkinson		Α	
3	Michael Wingard	Amphenol Interconnect Products	Р	Yes*
	Bill Mable		Α	
4	Bill Ham	Digital Equipment Corp.	Р	did not vote
	Charles Monia		Α	
5	John Scheible	IBM Corporation	Р	Yes
	Adge Hawes		Α	
	Daniel Tsai		A#	
6	Wolfgang Drichelt	ITT Cannon	Р	Yes
7	Chuck Grant	Madison Cable	Р	Yes*
	Brian Morissette		Α	
	Robert Bellino		A#	
8	Kelly Tenuta	Molex, Inc.	Р	Yes
	Gary Manchester		Α	
9	Mark DeWilde	Pathlight Technology	Р	
	Said Rahmani		Α	
	Hank Watson		D	Yes
10	David Deming	Solution Technology	Р	Yes
	Greg Alvey		Α	
11	Brad Kitson	VLSI Technology, Inc.	Р	No

1	2	Neil Edmunds	Xyratex	Р	Yes
		Herb Silverman		Α	

- P Principal
- A Alternate

A# - Additional Alternate

- D Designated Alternate, recorded as visitor in meeting attendance list.
- * written vote, member not in attendance.

The motions carried 10:1:0:1.

Brad Kitson stated his reason for voting no. "VLSI disagrees with the specification of the extended distance option. The specification requires a new link reset frame format. A new link reset frame format should include the unique id."

9.2 Change of Meeting Schedule

Neil Edmunds moved and Wolfgang Drichelt that X3T10.1 arrange their meeting schedule to co-locate meetings with X3T11 beginning in June, 1997. The motion carried 11:0:0:1.

10. Liaison Reports

10.1 SSA Industry Association

Neil Edmunds reported that Comdex plans are coming along nicely. Hank Watson, president of the SSA-Industry Association congratulated the task group on meeting is objective of forwarding the working drafts for second generation SSA.

10.2 SFF Industry Group

No report.

- 11. Review of Action Items
- 46) John Scheible to generate SSA-PH2 rev 4.
- 47) John Scheible to generate SSA-TL2 rev 4.
- 48) John Scheible to generate SSA-S3P rev 4.
- 49) Larry Lamers to request X3T10 process a letter ballot for the forwarded drafts.

12. Meeting Schedule

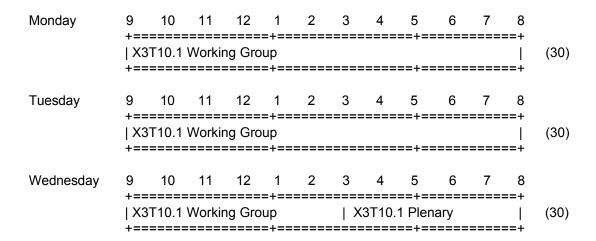
The next plenary meeting of X3T10.1 will be February 26, 1997, in Austin, TX at the Doubletree on I-35 North, phone: (512) 454-3737, fax: (512) 454-6915 hosted by IBM. The meeting will begin at 3:00 p.m.

Please note that changes to this schedule may occur. All changes to meeting dates, locations, and agendas will be posted to the X3T10-SSA reflector.

12.1 Meeting Map

The meeting map for the next meeting week is:

February '97 Meeting Map



Meetings marked with == are X3T10.1-authorized meetings.

12.2 Long term meeting schedule

The revised 1998 plenary meeting schedule is: Thursday, June 12, 1997 in Seattle, WA. Thursday, October 9, 1997 in Tuscon, AZ. Thursday, February 12, 1998 in *.

12.3 Authorization of Working Group Meetings

The chair noted that the working group meetings are required to operate under the same voting procedures as does X3T10.1 (that is, one vote per organization) and the results of a working group are not binding on the parent committee. This later requirement is why traditionally only non-binding straw polls are used in working group meetings. Any issue where the voting rules would make a difference should be deferred to the plenary group. Nonetheless, participants in a task group or ad hoc meeting should strive to achieve consensus prior to bringing issues to X3T10.1.

In the absence of any objection, X3T10.1 authorized the following meetings:

X3T10.1 Working Group, February 24-26, 1997 in Austin, TX starting at 9:00am

X3T10.1 Working Group, February 5, 1997in San Jose, CA.

X3T10.1 Editing Session (if needed)

Details on the working group meeting locations will be posted to the reflector

13. Adjournment

The meeting was adjourned at 4:30 p.m. on Wednesday, October 30, 1996.

^{* =} Tentative locations

Meeting Attendees	Enclosure (1)		
Lawrence Lamers	Adaptec	408-957-7817	ljlamers@aol.com
Adge Hawes	IBM Corporation	011-44-1705-486363	adge@uk.ibm.com
John Scheible	IBM Corporation	512-823-8208	scheible@vnet.ibm.com
Daniel Tsai	IBM Corporation	408-256-5729	tsaidaniel@vnet.ibm.com
Wolfgang Drichelt	ITT Cannon	49-7151 699 233	101573.2601@compuserve.com
Kelly Tenuta	Molex, Inc.	708-527-4043	ktenuta@molex.com
Hank Watson	Pathlight Technology	607-266-4000 x 202	jhw@pathlight.com
David Deming	Solution Technology	408-338-4285	ddeming@scruznet.com
Brad Kitson	VLSI Technology, Inc.	408-434-7553	brad.kitson@ustc.vlsi.com
Neil Edmunds	Xyratex	011-44-1705-486363	neil_edmunds@uk.xyratex.com
Edward Carmona	Zitel Corp.	510-44-9600	ecarmona@zitel.com

X3T10.1 Membership, Principals, Alternates & Observers - Enclosure (2)						
Lawrence Lamers	Adaptec	408-957-7817	ljlamers@aol.com			
Bob Atkinson	AMP, Inc	717-780-4274	rdatkins@amp.com			
Charles Brill	AMP, Inc	717-592-6198	cebrill@amp.com			
Bill Mable	Amphenol Interconnect	607-786-4236				
Michael Wingard	Amphenol Interconnect	607-786-4241	mikwingard@aol.com			
Bill Ham	Digital Equipment Corp.	508-841-2629	ham@subsys.enet.dec.com			
Charles Monia	Digital Equipment Corp.	508-841-6757	monia@shr.dec.com			
Adge Hawes	IBM Corporation	011-44-1705-4863	adge@uk.ibm.com			
		63				
John Scheible	IBM Corporation	512-823-8208	scheible@vnet.ibm.com			
Daniel Tsai	IBM Corporation	408-256-5729	tsaidaniel@vnet.ibm.com			
Wolfgang Drichelt	ITT Cannon	49-7151 699 233	101573.2601@compuserve.com			
Robert Bellino	Madison Cable	508-752-2884 x730	robert_bellino@madisonusa.ccmail.com			
			userve.com			
Chuck Grant	Madison Cable	508-752-2884 x725	charles_grant@madisonusa.ccmail.com			
			userve.com			
Brian Morissette	Madison Cable	508-752-2884 x214	brian_morissette@madisonusa.ccmail.c			
			mpuserve.com			
Gary Manchester	Molex, Inc.	708-527-4043	gmanchester@usa.molex.com			
Kelly Tenuta	Molex, Inc.	708-527-4043	ktenuta@molex.com			
Mark DeWilde	Pathlight Technology	607-266-4000	mark@pathlight.com			
Said Rahmani	Pathlight Technology	607-226-4000	saidr@pathlight.com			
Greg Alvey	Solution Technology	408-338-4285				
David Deming	Solution Technology	408-338-4285	ddeming@scruznet.com			
Brad Kitson	VLSI Technology, Inc.	408-434-7553	brad.kitson@ustc.vlsi.com			
Neil Edmunds	Xyratex	011-44-1705-4863	neil_edmunds@uk.xyratex.com			
		63				
Herb Silverman	Xyratex	714-476-1016	herb@cerf.net			

X3T10.1 1996 Document Register - Enclosure (3)

V2T10 1/05-122D1	CCCI Ctatus CMC Enhancement	I. Cabaible
	SCSI Status SMS Enhancement	J. Scheible
	Rename ACA terminology proposal	J. Scheible
	Buffer Threshold in 20/40 MByte Webs Proposal	G. Kapraun
	Physical Layer modifications for SSA-40	L. Lamers
	High Speed Serial Data Connector (HSSDC) Alternative	L. Huff
X3110.1/95a201R3	Extend the Queue Full mechanism to handle BUSY and RESERVATION CONFLICT	C. Monia
X3T10 1/95a204R1	Restrict all transfers between a given initiator and target to a single path	C. Monia
	Minutes of SSA Working Group - 10/95	Lamers/Hal
	Interlocked Election of Master Process - Simplified Version	M. DeWilde
	Non Master Capable Configutors	A. Dailey
	SMS Support for Speed Negotiation	A. Dailey
	Comments on SSA-TL1 rev 8	J. Scheible
	SSA Speed Negotiation	G. Kapraun
	SSA Speed Negotiation	G. Kapraun
	SAT Algorithm Extension for Switches	M. DeWilde
	TL1 support for SAT Regions	M. DeWilde
	LTL1 support for SAT Regions	M. DeWilde
	Minutes of SSA Working Group - 12/95	Lamers/Hal
	Additional QUERY PORT REPLY data	E. Carmona
	Minutes of X3T10.1 Plenary Meeting #13 - 12/95	Lamers/Hal
	Report on PH1 Issues	B. Ham
	Minutes of SSA 2nd Generation Working Group - 1/96	Ham/Lamer
	Effects of Mis-Termination	B. Ham
	Effects of Capacitance on Signals	D. Instone
	Source Termination Options	P. Murfet
	Alternatives for Source Termination	C. Parker
	Test Results on SSA-40	Cordey-Gal
	RSN field in Link Status Byte	I. Judd
	Eye patterns for SSA External Cable Assemblies	L. Huff
	SSA TDR Measurements	D. Instone
	Discard & Queue Async Alert	J. Scheible
	Discard & Queue Async Alert	J. Scheible
	2nd Genertation Documents	j. Sceible
	2 2nd Genertation Documents	J. Scheible
	Simple 40/20 Speed Negotion	J. Scheible
	Simple 40/20 Speed Negotion	J. Scheible
	ANSI Style guidelines.	J. Scheible
	Editorial comments on SSA-TL1 rev 9	J. Scheible
	Editorial comments on SSA-TL1 rev 9	J. Scheible
X3T10.1/96a116R1	SSA-PH1 Letter Ballot Comment Resolution	J. Scheible
	SSA-TL1 Letter Ballot Comment Resolution	J. Scheible
	SSA-S2P Letter Ballot Comment Resolution	J. Scheible
X3T10.1/96a120R0	Minutes of X3T10.1 Working Group - 2/26-28/96	L. Lamers
	Async Alert Queue Depth	J. Scheible
	Minutes of X3T10.1 Plenary Meeting #14 - 2/96	L. Lamers
	Impedance Measurements of micro-D Connector	W. Drichelt
	Phy Functional Test Report	V. Pecone
	Annex G revision for PH1	B. Ham
	Device Services Interface	A. Hawes
X3T10.1/96a128R0	Schedule for 2nd Generation SSA	J. Scheible

Y3T10 1/06a120D0	Presentation on TCP/IP Work in Progress	M. DeWilde
	Minutes of X3T10.1 Working Group - April '96	L. Lamers
X3T10.1/96a131R0	g , ,	
		J. Scheible
	Minutes of X3T10.1 Plenary Meeting #15 - 4/96	L. Lamers
	Hot Swap Issues for Tape Devices	C. Monia
	Opportunities for XOR on SSA	A. Hawes
	Third Party Data Transfers	A. Hawes
	Comparison of termination methods for SSA40	P. Murfet
	S3P Services Model	J. Scheible
	S3P Services Model	J. Scheible
	Termination schemes for PH2	P. Murfet
	MDSM Transfer Imepedance Results	W. King
	Presentation to Tape Folks	J. Scheible
	Third Party Support proposal for S3P	J. Scheible
	Entend Buffer Full condition to BUSY	J. Scheible
	SSA-PH2 changes proposal	J. Scheible
	SSA-PH2 changes proposal	J. Scheible
	Resurrection of Longer full speed Link proposal	M. DeWilde
	Notification of Change in ULPs supported	M. DeWilde
	TL2 Configutor Table Management Support	M. DeWilde
	TL2 Configutor Table Management Support	M. DeWilde
	Changes to TL2 Rev 1	J. Scheible
	Minutes of Working Group - 6/96	L. Lamers
	Minutes of X3T10.1 Plenary Meeting #16 - 6/96	L. Lamers
X3T10.1/96a149R0		D. Instone
	Read-Modify-Write Support in TL2	A. Hawes
	MDSM High Frequency Characteristics	W. Pfitzenre
	SSA Optical Converter	V. Melendy
	Analysis of Termination	P. Murfet
	Clarification of absolute and total reset use and effects	M. DeWilde
	Comments on TL2 and S3P	M. DeWilde
	Minutes of Working Group Meeting - 8/96	L. Lamers
	Minutes of X3T10.1 Plenary Meeting #17 - 8/96	L. Lamers
	Test Environment for Port Connection Segments	D. Instone
	SSA-S3P changes for SSA validation	J. Scheible
	Limited SMS handling for switches proposal	J. Scheible
	AER reporting between ULP and TL2 layers	J. Scheible
	Tape Requirements and Issues	G. Krembs
	Change format of Configator Table	J. Scheible
X3T10.1/96a164R0	Protecting against fast Break/Make in a Web proposal	J. Scheible
X3T10.1/96a165R0	Changes to SSA-PH2 rev 3	J. Scheible
	Optical links in PCC Annex	M. DeWilde
	Minutes of SSA-PH2 Study group, 9/24-9/26 in Boston, MA	J. Scheible
X3T10.1/96a168R0	Clarification of Resets	N. Apperly
	Changes to SSA-PH2 rev 3a proposal	J. Scheible
X3T10.1/96a170R0	Minutes of X3T10.1 Working Group - 10/96	L. Lamers
	Minutes of X3T10.1 Plenary Meeting #18 - 10/96	L. Lamers
X3T10.1/96a172R0	Simplification of Extended Distance Option	A. Hawes