

STA Technical Agenda -- SCSI Harbor

September 16, 1999 in Huntington Beach, CA

The STA Technical meeting/SCSI Harbor meeting will start 30 minutes after the Plenary but not before 2:30PM.

Agenda

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1. Opening Remarks and Introductions

Paul Aloisi opened the meeting at 2:30PM. He thanked Skip Jones of QLogic for hosting the meeting. As is customary, the people present introduced themselves. An attendance sheet was circulated. These minutes were taken by Bill Ham of Compaq substituting for the regular secretary, John Lohmeyer of LSI Logic.

The voting rules for participants in STA Tech meetings are contained in 97-109r0.

2. Approval of Agenda

After several modifications the agenda shown above was approved as shown.

3. Attendance and Membership

The following people attended the meeting:

Name	Organization	Electronic Mail Address
Mr. Lawrence J. Lamers	Adaptec, Inc.	ljlammers@ix.netcom.com
Mr. Bill Mable	Amplenol Interconnect	bmable@spectra.net
Mr. Gregg Neely	Andataco	greggn@andataco.com
Mr. Charles Brill	Brill Consulting	cebrill@ix.netcom.com
Mr. Phillip Holmes	The cast Rep "Group	castrep@earthlink.net
Mr. Don DeHaan	Cast-rite corp	ddehaan@cast-rite.com

Mr. Jonathan Cuyler	Ci Design	jonathan@ci-design.com
Mr. Michael Grant	Ciprico Inc.	mgrant@ciprico.com
Dr. William Ham	Compaq Computer Corp.	bill_ham@ix.netcom.com
Mr. Charles Tashbook	Dallas Semiconductor	charles.tashbook@dalsemi.com
Mr. Ricardo Dominguez	Dell Computer	ricardo-dominguez@dell.com
Mr. Keith W. Parker	Diogenes SCSI	diogenes@europa.com
Mr. Paul Remley	Fujitsu (FCPA)	premley@fcpa.fujitsu.com
Mr. Ed Nakaucai	Garwood Labs	edn@garwoodtestlabs.com
Mr. Kazuo Sakai	Hitachi, Ltd.	k-sakai@str.hitachi.co.jp
Mr. Koichi Ono	Hitachi America LTD	kuoichi.ono@hal.hitachi.com
Mr. Philip Van Haaster	Instrument Specialties	phil_van_haaster@instr.com
Mr. J. A. Jones	Intel Corporation	james.a.jones@intel.com
Mr. Louis Grantham	Linfinity Micro	lgdatcom@ix.netcom.com
Mr. John Lohmeyer	LSI Logic Corp.	lohmeier@t10.org
Mr. Alvin Cox	Seagate Technology	alvin_cox@notes.seagate.com
Mr. Gene Milligan	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Benjie Sun	Silicon Graphics	bsun@engr.sgi.com
Mr. Jeff Schroeder	ST Microelectronics	jeffrey.schroeder@st.com
Mr. Bob Snively	Sun Microsystems	bob.snively@sun.com
Mr. Paul D. Aloisi	Unitrode Corporation	aloisi@unitrode.com

26 People Present

4. STA Patent Policy [HTTP://www.scsita.org/xxxx](http://www.scsita.org/xxxx)

The STA patent policy was discussed. Drafts were distributed for comments. The board should approve the patent policy this evening in the board of directors meeting.

5. Approval of Minutes –July 15, 1999 - Colorado Springs, CO, (99s016r0)

The minutes of the last meeting (see 99s012r0) were approved as written.

6. Document Distribution

All SCSI Harbor documents are available at the ftp and web sites:
<ftp://ftp/scsita.org/pub/harbor>

Documents will be put on these sites in PDF format. Additionally, the meeting minutes will be distributed on the Harbor reflector (harbor@scsita.org). To be added to the Harbor Reflector, please send an email to info@scsita.org. In the email, please mention that you wish to be added to the Harbor reflector and include your full contact information (organization, address, phone, fax, and email).

7. Review of Old Action Items

7.1) Tom Winsemius will complete the open issues in sections 2.6 (EMI). Status: overcome by events

7.2) SGI or Fujitsu will do thermal testing and present results plus anticipated future needs. Status: ongoing

7.3) Jay Neer will provide a date when an SCA-2 backplane will be available for shock and vibration testing. Status: Gerber file probably exists the date is October 01, 1999 - action item done

7.4) Each drive vendor to provide SGI and Intel a total of 40 1.0-inch and 30 1.6-inch drives for testing 68-pin drives for thermal test will be provided to Mark Olsen and 80-pin drives for vibration test will be provided to Benjie Sun Status: ongoing.

7.5) Alvin Cox (Seagate) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. Status: done

7.6) Charles DeJesus (Quantum) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. Status: ongoing

7.7) Wayne Roen (Western Digital) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. Status: done

7.8) Tom Winsemius (IBM) will provide Benjie with thermal and vibration contact information for his company. He will also provide NDA information to Tom Irvine and Benjie Sun. Status: Tom no longer with IBM, Dan Colgrove to take over the action item, ongoing

7.9) Paul Aloisi and Jay Neer will work on completing the backplane design and fabrication. Status: done

7.10) Paul Aloisi and Jay Neer will communicate the patent issue to the STA BOD. (STA Patent Policy) Status: done

7.11) Parviz Rahmany (Intel) will provide design personnel 3Q99. Status: ongoing

7.12) Paul Aloisi will discuss SCSI Plug and Play revision with the STA BOD. Status: done

8. Status

Benjie Sun reviewed the status. The details are contained in 99s024r0.

9. Thermal data

Robin Steinbrecher presented results of thermal testing. The details are contained in 99s026r0.

10. Wrapper business review

Ron Flamm of Intel discussed the issues of how the SCSI harbor wrapped devices would actually become available for purchase by a system company. Question of payment for tooling, debug and development of plastic and die cast parts.

Need a definite time frame for when wrapped devices and wrappers will become part of standard drive carriers.

Need a clear production cost target for a finished carrier

SCSI Harbor is perceived as having too many unknowns with resulting high risks

Suggested actions:

- Commitment from more OEM's for development

- Commitment from drive manufacturers (implementation dates)

- Clear definition of shared tooling costs required for plastic and die cast parts.

Ron stated that Intel wants to buy the wrapper from the drive manufacturers. He said that Intel wants to see other OEM's commit. His systems have typically two drives per system and will alone drive adequate volume.

Document number for this presentation will be assigned in the future.

11. EMI design

Philip Van Haaster of Instrument Specialties made a presentation concerning a removable EMI face shield. No document number was available for the minutes but an electronic document will be made available – see Paul Aloisi. This design seems to be suitable for the SCSI harbor application.

Ed Nakaucai of Garwood labs explored the quasi theoretical situation with the geometries of the shield openings and “cracks. It was verified that the proposed design met a reasonable interpretation of the requirements for SCSI Harbor.

12. Dock Structural data

Benjie Sun and D. Ngo explored data acquired from experiments with real wrappers and docks. These results are contained in 99s025r0.

13. SCSI Harbor Design Review Rev 6 [Benjie Sun]

Benjie Sun reviewed the changes from Rev 5 to Rev 6 (98s004r6)

14. Manufacturability - casting

Philip Holmes - Cast Rep Group

D. Dehaan Cast-rite Corporation presentation – hand out

Review of aluminum versus zinc casting

Tolerances with the different material, life of molds

Review of the cost of Aluminum versus zinc – aluminum is cheaper by 10 to 20 cents.

15. SCSI Plug and Play (PnP) – Documents will be on the SCSITA.ORG web site.

15.1 Desktop [Larry Lamers]
Preliminary Document Review?

15.2 Server [Looking for an editor]
Preliminary Document Architecture Review [Paul Aloisi]

SCSI Plug & Play Servers

1. Scope

This document is a profile of how a server SCSI bus should be designed.
This is a profile of the Protocol, Electrical and Mechanical Docking of the SCSI devices. This will make designing a server easier to design with the best cost - performance.

2. Objective

Standard configurations for servers that make servers easier to design and support by providing a standard set of requirements.

3. Hard Disk Storage.

RAID

SCSI Harbor

4. Optional Storage

CD-ROM – Tape – Optical

5. Backup devices

Tape

Optical

6. Load devices

CD-ROM

7. Protocol

Packetized with QAS

Enclosure Services

8. Power requirements

9. Cooling requirements.

16. Old Business

17. New Business

18. Review of Action Items

19. Meeting Schedule

The next STA Technical meeting will be on Thursday, November 4, 1999 beginning 1/2 hour after the T10 meeting, but no sooner than 2:30 p.m. in Seaside, CA. The meeting hotel is the Embassy Suites (831) 393-1115 . See 99s0xxr0.pdf on the Harbor Web site for details.

20. Adjournment

Meeting was adjourned at 6:05 PM