

Accredited Standards Committee*
INCITS, Information Technology



Doc. No.: T11/03-292v1
Date: June 03, 2003
Project: FC0 MJSQ ad hoc
Reply to: Dennis Petrich
Allen Kramer
Bill Ham

To: Membership of T11.2
From: Dennis Petrich, chair MJSQ working group
Allen Kramer, vice chair MJSQ working group
Bill Ham, secy MJSQ working group
Subject: Approved minutes of T11.2 FC0 MJSQ working group on April
08, 2003

Agenda

1. Opening remarks and introductions
2. Attendance and membership
3. Approve agenda
4. Document distribution
5. Review minutes of previous meeting
6. Review old action items
7. Call for patents
8. Liaison reports
 - 8.1 T10 (SAS), Ham
9. New discussions/presentations
10. Old discussions / presentations
11. Editing of MJSQ sections
 - 11.1 General status, Ham
12. Old Business
13. New Business
 - 13.1 T11.2 letter ballot comments resolution
 - 13.2 Strategy for completing MJSQ, Petrich
 - 13.3 Additional topics for future consideration (MJSQ-2)
 - 13.4 MJSQ-2?
14. Review action items
 - 14.1 Old action items from past meetings
 - 14.2 New action items from this meeting
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16. Adjourn

Results of Meeting

- 1. Opening remarks and introductions**

Dennis Petrich, chair, led the meeting. He opened the meeting at 9:00 AM and thanked the host, Bob Snively of Brocade, for hosting the meeting. Bill Ham took these minutes.

2. Attendance and membership

Attendance at plenary meetings does count toward minimum attendance requirements for T11.2 membership. Working group meetings are open to any person or organization directly and materially affected by T11.2's scope of work but do not count toward minimum attendance for T11.2 membership.

The following people attended the meeting:

Name	Company	Tel
Frank Barber	Barber Consulting	(610) 439-6850
Ali Ghiasi	Broadcom	408.922.4723
Rich Umberhocker	Crossroads Systems, Inc.	(512) 928-7231
Edward Grivna	CYPRESS	952-851-5046
Greg McSorley	EMC	(508) 382-5928
Thomas Linnell	EMC CORP.	(508) 435-1000 x2149
Hossein Hashemi	EMULEX	714-513-8226
Bob Cai	Fujitsu	408.895.1647
Bill Ham	HP	978 828-9102
Rami Kanama	Infineon	408.501.5803
Vasanta Rao	Infineon Technologies North	408-501-5811
Schelto van Doorn	Intel Corporation	408.496.3426
Eric Borisch	JDS Uniphase	507.322.9204
Michael Jenkins	LSI Logic	408-433-7901
Alan Pfeifer	LSI Logic Corporation	(316) 636-8898
April Bergstrom	PMC-Sierra	610289. 5217
Greg Casey	Qlogic	952.932.4095
Larry Barnes	Qlogic	949.389.7509
Bill Pagano	Seagate	719.268.5610
Vit Novak	Sun Microsystems	510.936.3284
Mark Guenther	Tektronix	503.627.4233
Bob Atkinson	Tyco	717-592-4274
Michael Fogg	Tyco	717-986-5802
Roy Sebring	Vixel	425.806.4089
Dennis Petrich	Wavecrest	408-436-9000
Paul Levin	XYRATEX	310.372.7352
Total: 26 attendees		

3. Approve agenda

V. Novak moved and Shelto seconded that the agenda as shown above be approved. The motion passed without objection.

4. Document distribution

This section describes the availability of draft documents that are intended to be published as a result of work by the MJSQ committee.

Document distribution is now being done over the web. Documents relating to MJSQ work can be found on the T11 web site (www.t11.org) by going to "documents" and searching on the key words "jitter" and/or "MJSQ".

The only active document in this working group is the MJSQ technical report presently at rev 10.0.

A summary of the presently active policy to document distribution is included for reference.

All presentations are posted electronically at the approved ftp within two weeks after the meeting. Format must be an approved electronic file format. While we are still paper based, a paper copy must also be given to the secretary at the working group meeting.

(Presentations are defined as material shown publicly in the Plenary or authorized working group meetings.)

Submission of Documents for T11 Document Numbers:

A online system is now available to provide document numbers and accept the submission of documents. The system is accessed via the t11 web page at <http://www.t11.org>. Follow the "docs" link in the left-hand frame, or at the bottom, and fill in a form giving details about the document. In order to complete the form, it will be necessary to enter a password. The password is given out at T11 meetings, or can be obtained from the T11 Chair. Instructions will then be given about uploading the file to the ftp site at <ftp.t11.org>.

We now use all electronic document distribution.

A T11.2 reflector is operational over the T11 site.

The committee forms its agenda by the following:

1. A call (reminder) for presentations by the chair 3 weeks in advance
2. Those wanting to be on the agenda submit request including:
title
presenter
time required
abstract
3. Chair creates agenda and posts 2 weeks in advance of the meeting
4. At the meeting it is the chair's discretion to allow additional presentations

5. Review minutes of previous meeting

The minutes of the last MJSQ working group were reviewed with some minor editorial changes. Motion Ham/Barber that the minutes as modified be accepted. Motion passed without objection. The amended minutes will be posted to the ftp site.

Action item: Ham will get the document number and do the posting.

6. Review old action items

The old action items were reviewed and the status was updated.

7. Call for patents

Below is the formal call for patents which was issued by Dennis at the meeting:

PATENTS

- q A call is hereby issued for the existence of patents required to implement the results of any & all T11 projects to be disclosed. It is necessary for the holders to agree to license those patents in conformance with the ANSI patent policy if the project on which they read is to proceed. T11.2 is not involved in this process @ all!*
- q The contact @ ANSI is the General Counsel, Ms. Amy Marasco -(212) 642-4954 or amarasco@ansi.org*
- q Patent policy description @ www.ansi.org/proctbl.html, section 1.2.11*
- q IBM has declared that it has patents which apply to the practice of FC & SBCON. The contact is:
Tom Slattery, Program Director, IBM Corporation, North Castle Drive, Armonk, New York 10504
Tel: (914) 765-4351, Fax: (914) 765-4390, Email: tmslatt@us.ibm.com
Thanks to Stuart Berman of Vixel for tracking down this new contact*

There was some discussion about whether this call for patents needs to be made in ad hoc groups. It was noted that formal statements of specific patent policy compliance issues from individual companies are to be made at the T11 (main) plenary, not working groups, or sub plenary groups (i.e. T11.2).

Discussions on cross licensing pricing are not appropriate at any level. Technical discussions are acceptable.

There was no response to this call for patents.

8. Liaison reports

8.1 T10 (SAS), Ham

Bill noted that the SAS document has progressed to first public review. Unfortunately, some of the jitter concepts in that document do not reflect the latest thinking. This is partly due to MJSQ not being updated in the definitions section until last meeting. Public review comments are being contemplated to improve this situation.

A SAS-2 project proposal has been created.

9. New discussions/presentations

10. Old discussions / presentations

11. Editing of MJSQ sections

11.1 General status, Ham

The latest version of the document has been posted. There are significant changes in the PDF/CDF clauses. A list of items to be included in MJSQ was reviewed.

12. Old Business

None

13. New Business

13.1 T11.2 letter ballot comments resolution

A start in resolving comments received prior to and in this meeting was made. A comments resolution document was created.

13.2 Strategy for completing MJSQ, Petrich

The present strategy is to request a T11 letter ballot on rev 11 of MJSQ after the next plenary week in June. Interim con calls (probably 2) to continue comments resolutions will be scheduled.

Consider forwarding MJSQ to INCITS and ISO for publication as an international technical report.

Action to Schelto to investigate the process for forwarding a technical report to ISO.

13.3 Additional topics for future consideration (MJSQ-2)

Phase noise vs. Jitter
ref clock standard and specification
jitter distribution issues
further detail concerning compensation issues
speed agility issues
low population DJ (scrambling, 64/66 etc.)
receiver bandwidth specifications
more implementation examples
receiver tolerance roadmaps
compliance interconnect extensions (active, non-linear)
common mode
parallel-serial issues
cross talk issues
resonance issues
test sample design

Improved compliance testing methods of FC systems

Enhancements to MJSQ to include interactions of:

- signal/noise
- slew rate
- receiver sensitivity
- component bandwidth
- transmission reflections

Additional methodologies as may be proposed

13.4 MJSQ-2?

By acclamation the group requested that an MJSQ-2 project proposal be created to follow MJSQ. This will be done after the MJSQ document is forwarded.

14. Review action items

[Note: the following material describes the practice being used in the MJSQ-2 minutes for presenting and reporting status on the action items.]

This section contains the action items agreed during the meeting. Only action items with identified people who are responsible to do the action are recorded. Once an action item has been created there are two ways to get an action item removed from this list: (1) complete the action item - preferred method - and (2) the action item has become no longer relevant or appropriate because events have changed since the action item was created. It is possible for an action item to be transferred to another person but that will not remove it from the list and the new owner will be listed along with the record that the ownership has changed.

There are two divisions under this item: (1) old action items which were created in earlier meetings and (2) new action items which were created during this meeting. There is no tracking of the meeting where the action item was originally created (other than by looking back at previous minutes.)

All action items that were completed by the time the action items were reviewed are given the designation "done". The done action items will remain on the list in the draft and approved minutes for the meeting in which the action item was reported to have been completed. This is to ensure that the person responsible for the action item get the credit/blame for the work. Action items that were reported done in one meeting will be removed from the list for the minutes of the next meeting.

14.1 Old action items from past meetings

Status as of this meeting is shown:

Bill Ham to post the minutes to the web site.
Status: done

Dean Vermeersch to investigate methods for accounting for test artifacts using TDW (formerly VTD) approaches.
Status: status next meeting

Allen Kramer to provide beta R write up for the document
Status: carried over with progress

Henri Merkelo to put his presentation on design in dispersively lossy environments on the T11 web site.
Status: carried over

Ali Ghaisi to post his presentation on 10 Gb/s measurements.
Status: carried over

Mark Marlett: to do network analyzer sweeps on instruments, use a third method eg. Spectrum analyzer, and determine if test equipment used a differential input
Status: carried over

Bill Ham to post latest revision of MJSQ for the T11.2 letter ballot
Status: done

14.2 New action items from this meeting

Schelto to investigate the process for forwarding a technical report to ISO.
Status: new

Ham to schedule con calls for comments resolution

Status: new

Mark Guenther to provide improved fig 54

Status: new

Mark to provide the equations for DJ in clause 6.6.2

Status: new

Dennis to provide the equation for DJ and TJ for clause 6.5.7

Status: new

15. Next meetings

The next working group meeting will be requested for Tuesday June 03 2003, in Minneapolis, MN, from 9AM to 5:30 PM.

16. Adjourn

The meeting adjourned at 5:30PM.