

Accredited Standards Committee*
INCITS, Information Technology

Doc. No.: T11/04-812v0
Date: October 04, 2004
Project: FC0 FC-MSQS ad hoc
Reply to: Bill Ham
Allen Kramer

To: Membership of T11.2
From: Bill Ham, acting chair FC-MSQS working group
Allen Kramer, vice chair FC-MSQS working group
Bill Ham, secy FC-MSQS working group
Subject: Draft minutes of T11.2 FC0 FC-MSQS working group on October 04, 2004ds

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
 - 8.2 Labeling project in SFF committee (8082), Ham
 - 8.3 OIF / UXPI / STATISTICAL EYE DIAGRAM, Tom Palkert
9. New discussions/presentations
10. Old discussions / presentations
11. Old Business
 - 11.1 MSQS Project proposal status
 - 11.2 Additional topics for future consideration (MSQS)
12. New Business
 - 12.1 Link model development and budgeting process
13. Review action items
 - 13.1 Old action items from past meetings
 - 13.2 New action items from this meeting
14. Next meetings
15. Adjourn

Results of Meeting

1. Opening remarks and introductions

Bill Ham, acting chair, led the meeting. He opened the meeting at 9:00 AM and thanked the host, John Tyndall of Crossroads, for hosting the

Page 1

*Operating under the procedures of The American National Standards Institute.
INCITS Secretariat, Information Technology Industry Council (ITI)
1250 Eye Street NW, Suite 200, Washington, DC 20005-3922
Email: incits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

meeting. He then led a round of introductions. Bill Ham, secy, 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
Greg LeCheminant	Agilent	707.577.6524
Ali Ghiasi	Broadcom	408.922.4723
Vivek Telang	Broadcom	512.651.9523
Greg McSorley	EMC	(508) 382-5928
Frank Barber	eSilicon Corporation	(610) 439-6850
Nabil Osman	Fujikura Technology America Corp.	(408) 748-6991
Bill Ham	HP	508-841-2629
Bill Bissonette	Intel	978.553.6140
Schelto van Doorn	Intel Corporation	408.398.2441
Eric Borisch	JDS Uniphase	507.322.9204
Michael Jenkins	LSI Logic	408-433-7901
Achyut Shah	Maxim	408.331.4164
Jan Filip	Maxim	49.51.39.95.9867
Farooq Yousuf	Mindspeed Technologies	(949) 579-4052
Allard van der Horst	Phyworks	44.117.974.9020
Dean Wallace	QLOGIC	949-389-6480
Allen Kramer	SEAGATE	612-402-2624
Gianfranco Scherini	STMicroelectronics, Inc.	(408) 467-8426
Vit Novak	Sun Microsystems	510.936.3284
Dean Vermeersch	Tyco	717-986-3143
Jun Ma	Wavecrest	408.436.9000
Tom Palkert	Xilinx	952.401.7997
Paul Levin	XRATEX	310.372.7352

3. Approve agenda

Schelto/Novak moved 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 MSQS committee.

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

The only active document in this working group is the MSQS technical report presently at rev 0.0 (no draft yet available).

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/MSQS working group were reviewed with some minor editorial changes. Motion Ham 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

The chair noted that the formal call for patents is issued at the T11.2 and T11 plenary meetings. Companies with patents that may bear on the subject of this ad hoc are advised to consider this call for patents.

There was no response to this call for patents.

8. Liaison reports

8.1 T10 (SAS), Ham

Progress is being made in incorporating the MJSQ definitions and requirements into SAS 1.1. This should be completed in January 2005 for the SAS 1.1 letter ballot.

8.2 Labeling project in SFF committee (8082), Ham

Document is on SFF web site. Publication is expected soon substantially in the form now available.

8.3 OIF / UXPI / STATISTICAL EYE DIAGRAM, Tom Palkert

Tom noted that some work in OIF based on statistical eye diagrams was going on. This is expected to become a work item for MSQS.

9. New discussions/presentations

10. Old discussions / presentations

11. Old Business

11.1 MSQS Project proposal status

The project proposal approved at the last MSQS meeting is being requested for approval at the T11.2 meeting due to the two week rule having been called at the last meeting. The project proposal is for an INCITS (not an ANSI/INCITS) technical report due to the rules for ANSI technical reports not being satisfied in T11.

Motion Ham/Schelto that the MSQS project proposal, 04-564v1, be approved by the T11.2 plenary and forwarded to T11 for further processing.

Motion passes unanimously.

Note that this motion was revised at the T11.2 plenary following this meeting to go back to the 04-564v0 where the ANSI/INCITS was contained. This was because of an erroneous interpretation at the last plenary.

11.2 Additional topics for future consideration (MSQS)

This list has been transferred to the project proposal.

12. New Business

12.1 Link model development and budgeting process

This meeting focused mainly on developing a process for determining the signal budgets for electrical links. After considerable discussion the following steps in the process were identified:

- Select the link components by type
- Focus success criteria on meeting a signal at the input to the receiver device (this does not preclude signal processing in the receiver device nor does it require an open eye)
- Create the circuit model for the entire link (this was completed in the meeting)
- Select ballpark values for the circuit components (approximately 80% done)

- Select the appropriate simulation tools (in progress but initial results are expected using the latest revision of Oculus)
- Execute an optimization process based on Monte Carlo variation of model parameters
- Select specific signal property limits at the transmit device connector and at the receiver device connector
- Document the reference design (including component tolerances) that was used to create the limits

A framework link model was completed along with many suggested parameters.

A discussion of the best modeling tool to use that could do both Monte Carlo and eye diagram outputs. It appeared that Oculus may be the best candidate tool. This is still an open question.

Dean Vermeersch offered to use his version of Oculus to attempt some simulations.

13. 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.

13.1 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: carried over to MSQS

13.2 New action items from this meeting

Paul Levin to post the model framework developed during this meeting
Status: new

All to supply better parameters for the framework link model
Status: new

Dean Vermeersch to attempt a Monte Carlo simulation with eye diagram outputs using Oculus.
Status: new

14. Next meetings

The next working group meeting will be requested for Tuesday, December 07, 2004 in Indian Wells, CA from 9 AM to 5 PM.

15. Adjourn

Motion Kramer/Ham to adjourn. Passes unanimously.

The meeting adjourned at 5:00PM.