

Accredited Standards Committee
INCITS, Information Technology

Doc. Number:
Date: 10/09/07
Project:
Reply to: Mike Jenkins
Dean Wallace

TO: MEMBERSHIP of T11.2

FROM: Mike Jenkins Chair Electrical Working Group
Dean Wallace Vice-chair Electrical Working Group
Dean Wallace Secretary Electrical Working Group

Subject: Approved minutes of electrical working group 10/09/07

AGENDA

1. Opening remarks and introductions
2. Attendance and membership
3. Approve agenda
4. Document Distribution
5. Review minutes of previous meeting and review of minutes from interim meeting.
6. Review old action items
7. Call for patents
8. Presentations
 - 8.1 Review of SFP+ connector electrical performance, 07-461v0, Mike Fogg, Tyco
 - 8.2 TWDP/WDP code for 8GFC SA and EA delta points, 07-553v1, Tom Lindsay, ClariPhy
 - 8.3 Introduction to DFEEYE, 07-550v0, Adam Healey, Mark Marlett, LSI.
 - 8.4 Migrating Beta and Epsilon points to DFEEYE, 07-592v0, Adam Healey, Mark Marlett, LSI
9. Project review
 - 9.1 FC-PI-3
 - 9.2 FC-PI-4
10. Old business/presentations
11. New business

12. Review action items
13. Next meeting schedule
14. Adjourn

RESULTS OF MEETING

1. Opening remarks and introductions

Mike Jenkins, chair, led the meeting. He opened the meeting at 1:30pm on Tuesday. Mike thanked the host FCIA. He then led a round of introductions.

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 this meeting:

NAME	COMPANY	TELEPHONE NUMBER
Greg McSorley	Amphenol	508-829-6523
Ali Ghiasi	Broadcom	408-922-7493
Bob Snively	Brocade	408-333-8135
Doug Coleman	Corning	828-901-5580
Jason Pritchard	EMC	508-435-1000
Hossein Hashemi	Emulex	714-885-3609
Bill Schuman	Emulex	425-806-4046
Frank Barber	eSilicon	610-439-6850
David Wagner	FCI	805-498-0325
Pravin Patel	IBM	919-543-3837
Dave Stauffer	IBM	802-769-6914
Mike Dudek	JDSU	303-530-3189
Dave Lewis	JDSU	408-546-5448
Mike Jenkins	LSI Logic	408-433-7901
Rick Hernandez	PMC-Sierra	408-553-4187
Dean Wallace	Qlogic	949-389-6480
Al Krammer	Seagate	952-402-2624
Pavel Zivny	TEK	503-806-1758
Rajeev Jain	TI	214-480-2778
Dondal Grillo	Toshiba	952-842-2425
Paul Levin	XYRATEX	310-372-7352

3. Approval of Agenda

The motion to approve the agenda was made by Frank Barber, eSilicon and seconded by Al Krammer (Seagate). There were no objections.

4. Document distribution

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

Document distribution is now being done over the web. Documents relating to the electrical working group work can be found on the T11 website (www.t11.org) by going to “documents” and searching on the key word electrical.

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.

Presentations are defined as material shown publicly in the plenary or authorized working group meetings.

Submission of documents for T11 document numbers: An 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 of 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.

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 three weeks in advance.
2. Those wanting to be on the agenda submit request including; title, presenter, time required, abstract.
3. Chair creates an agenda and posts two weeks before the meeting.
4. At the meeting it is the chair’s discretion to allow additional presentations.

5. Review minutes of previous meeting and review of minutes from interim meeting

Motion to approve minutes from previous meeting, Mark Marlett (LSI), seconded by Al Krammer (Seagate). There was no objection to approving the minutes.

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

Minutes from interim meeting were reviewed.

6. Review old action items

There were no old action items.

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 for this call for patents.

8. New discussions/presentations

8.1 TWDP/WDP code for 8GFC SA and EA delta points, 07-553v1, Tom Lindsay, ClariPhy

The code is MATLAB code. The code is modified from TWDP in 802.3 10GBASE-LRM. The TWDP is a measure of “equalizability” defined as the difference in slicer SNR between a measured TX waveform through a reference channel and an ideal waveform into an ideal receiver where both waveforms have the same O/VMA (=1).

The specific changes from LRM were reviewed. The captured waveform must be 16x oversampled and time-aligned with the data sequence/pattern.

8.2 Introduction to DFEEYE, 07-550v0, Adam Healey, Mark Marlett, LSI

DFEEYE derives a “traditional” eye diagram figures of merit from waveforms with no eye opening. The data is a scope capture of a sampled waveform. The MATLAB code contains a timing recovery algorithm. Mark reviewed the timing recovery unit (TRU). The TRU uses textbook non-linear spectral line technique.

Mark went through a demonstration of how the code works.

8.3 Migrating Beta and Epsilon points to DFEEYE, 07-592v0, Adam Healey, Mark Marlett, LSI

How to convert from the TWDP specs to the DFEEYE tool VEYE specs. The equations on how to do this were reviewed. The new specification numbers were reviewed. TWDP is a metric based on waveshape, this algorithm includes amplitude and waveshape.

Proposed that DFEEYE be the tool used to specify signals at Beta and Epsilon points. If this is adopted, mark-up text for the appropriate sections will be supplied to the editor.

9. Project Review

FC-PI-3: No action.

FC-PI-4:

10. Old business/presentations

No old business.

11. New business

No new business.

12. Review action items

New Action items

Adam Healey will release the code (enhanced WDP) by 10/15.

Tom Lindsay, look at enhanced WDP and compare to WDP code and see if enhanced WDP can be applied to the optics.

Mark Marlett and Tom Lindsay will clarify if enhanced WDP can be modified by a third party.

Old Action Items

Pravin Patel (IBM) to provide channel impulse response and Touchstone files for channel used in Epsilon presentation. (Carry over)

13. Next meeting schedule

The next meeting is Tuesday Decemeber 4th from 1:30pm to 5:00pm in Lake Mary, Fl .

Request two teleconference.

14. Motion to adjourn

Motion to adjourn: Hossein Hashemi (Emulex) seconded by Frank Barber (eSilicon).