

Accredited Standards Committee  
INCITS, Information Technology

Doc. Number:  
Date: 8/6/08  
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: Draft minutes of electrical working group 8/6/08

#### 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 XLAUI/CAUI channel SDD21, SDD11, Ali Ghiasi, Brocade, 08-446v0
  - 8.2 Review the 14Gb versus 17Gb pro/con document, Mike Jenkins, LSI, xx-xxx
9. Project review
  - 9.1 FC-PI-3
  - 9.2 MSQS
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 2:00pm on Wednesday. Mike thanked the host Microsoft. 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
Rita Homer	Avago	408-435-4559
Bill Schuman	Emulex	425-806-4046
Hossein Hashemi	Emulex	714-885-3609
Frank Barber	eSilicon	610-439-6850
Mark Furumai	Excelight	408-324-1400
Doug Wagner	FCI	805-498-0325
Richard Johnson	Finisar	408-400-1093
Mike Fitzpatrick	Fujitsu	405-820-5809
Dan Colegrove	Hitachi	702-614-6119
Pravin Patel	IBM	919-543-3837
Dave Stauffer	IBM	802-769-6914
Mike Dudek	JDSU	303-530-3189
Mike Jenkins	LSI Logic	408-433-7901
Rob Elliot	Panduit	708-444-6925
Rick Hernandez	PMC-SIERRA	408-553-4187
Dean Wallace	QLogic Corporation	949-389-6480
Vit Novak	Sun	650-786-6175
Terry Cobb	Systemax	972-792-3157
Andrew Nowak	Tyco	508-752-2884
James Lott	VI Systems	Germany 30 31422073
Tom Palkert	XILINX	952 200 8542
Mark Marlett	XILINX	408-869-2769
Dean Wallace	Qlogic	949-389-6480
Paul Levin	XYRATEX	310-372-7352

## 3. Approval of Agenda

The motion was approved by acclimation. There were no objections.

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](mailto:incits@itic.org) Telephone 202-737-8888, FAX 202-638-4922

#### **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](http://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 Dave Stauffer (IBM), Vit Novak (Sun).

#### **6. Review old action items**

Channel models, Pravin Patel, IBM. Carry over

FCIA mrd Epsilon points, Tom Palkert. Carry over

Direct attach copper cable requirements and distance from FCIA, Tom Palkert. Carry over

IEEE KR channels, Ali Ghiasi, Broadcom. Carry over.

## 7. Call for patents

The chair noted that the formal call for patents is issues 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 XLAUI/CAUI SDD21, SDD11, Ali Ghiasi, Broadcom, 08-446v0

Ali reviewed the XLAUI/CAUI return loss specifications.

### 8.2 14Gb versus 17Gb encoding table, Mike Jenkins, LSI, XX-XXX

Item	14Gb	17Gb
Optical		
Longer distance MMF fiber	+30%	
DFB laser (cost and power impact)	Un-cooled	Maybe un-cooled
10Gb component re-use	maybe	no
Optical components demonstrated	yes	yes
Baseline wander effect	little	none
Retiming required in module for limiting (100M OM3).	Maybe	Yes
Protocol change (T11.3)		
Speed negotiation	?	?
Scrambling(improve emi, eq adaptation)	inherent	needed
Back channel for transmit eq training	maybe	maybe
Latency	?	?
FC-AL	no	yes
Primitives/ordered sets	Needs def	Already def
Electrical		
Signal integrity		
Insertion loss deviation (ILD)	Slightly easier	
Insertion loss and baseline wander (additional run length of	same	same

64b/66b offsets higher frequency of 8b/10b).		
Crosstalk (NEXT, FEXT)	Slightly easier	
Circuit issues		
Rise time (0.41UI target)	Slightly easier	
ENDEC complexity	Difficult	
Refclk divider compatibility with 8Gb and 4Gb (PLL).	difficult	easy

## Straw Poll

If the protocol issues can be resolved, the electrical working group prefers 14.025Gb versus 17Gb for 16GFC.

Yes: 5 No: 5 Abstain: 11

## 9. Project Review

FC-PI-3: No action.  
MSQS Liason

## 10. Old business/presentations

No old business.

## 11. New business

No new business

## 12. Review action items

### New Action items

None

## 13. Next meeting schedule

The next meeting is Wednesday October 8<sup>th</sup> from 2:00pm to 4:30pm in Providence, RI.

Request two teleconference.

**14. Motion to adjourn**

Motion to adjourn: Greg McSorley (Amphenol) seconded by Paul Levin(Xyratek)