
**IEEE 802.3ba Copper “Cu” Sub-Task Force
Agenda and General Information
Quebec, Quebec CA - May 2009**

**Cu Sub-Task Force Chair
Chris Di Minico**

**Editor(s) – Ryan Latchman
Arthur Marris**

Cu Sub-Task Force

- **Cu Sub-Task Force Chair and Editor for 40GBASE-CR4 and 100GBASE-CR10, clause 85**
 - **Chris DiMinico**
- **Editor, 40 Gb/s (XLAUI) and 100 Gb/s (CAUI) interfaces, clause 83A**
 - **Ryan Latchman**
- **Editor, Clauses 69, 73, 74, 84, Annexes 69A, 69B**
 - **Arthur Marris**

Agenda

- **Administrative**
 - **Welcome and Introductions**
 - **Ground Rules**
 - **Appoint recording secretary**
 - **Patent policy and other guidelines**
- **New business**
 - **Comment resolution IEEE Draft P802.3ba/D2.0**
 - **Clauses 85, 83A,83B and 69,69A,69B,84**
 - **Review presentations addressing comments**
 - **Output documents**
- **Closing**

Ground Rules

- **Based upon IEEE 802.3 Rules**
 - **Foundation based upon Robert's Rules of Order**
 - **Anyone in the room may speak**
 - **Anyone in the room may vote**
- **RESPECT... give it, get it**
- **NO product pitches**
- **NO corporate pitches**
- **NO prices!!!**
- **This includes costs, ASPs, etc. no matter what the currency**
- **NO restrictive notices**

- **Please use the microphone to address the Sub-Task Force**

Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy. Participants:

- “Shall inform the IEEE (or cause the IEEE to be informed)” of the identity of each “holder of any potential Essential Patent Claims of which they are personally aware” if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
 - “Personal awareness” means that the participant “is personally aware that the holder may have a potential Essential Patent Claim,” even if the participant is not personally aware of the specific patents or patent claims
- “Should inform the IEEE (or cause the IEEE to be informed)” of the identity of “any other holders of such potential Essential Patent Claims” (that is, third parties that are not affiliated with the participant, with the participant’s employer, or with anyone else that the participant is from or otherwise represents)
- The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group

Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2

- Early identification of holders of potential Essential Patent Claims is strongly encouraged
- No duty to perform a patent search

Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

IEEE-SA Standards Boards Bylaws

<http://standards.ieee.org/guides/bylaws/sect6-7.html#6>

IEEE-SA Standards Board Operations Manual

<http://standards.ieee.org/guides/opman/sect6.html#6.3>

Material about the patent policy is available at

<http://standards.ieee.org/board/pat/pat-material.html>

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/board/pat/index.html>

This slide set is available at <http://standards.ieee.org/board/pat/pat-slideset.ppt>

Call for Potentially Essential Patents

- **If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:**
 - **Either speak up now or**
 - **Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or**
 - **Cause an LOA to be submitted**

Other Guidelines for IEEE WG Meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
 - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
 - **Don't discuss specific license rates, terms, or conditions.**
 - **Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.**
 - **Technical considerations remain primary focus**
 - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
 - **Don't discuss the status or substance of ongoing or threatened litigation.**
 - **Don't be silent if inappropriate topics are discussed ... do formally object.**

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and “Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy” for more details.

Agenda Tuesday and Wednesday

- **Schedule (start Tuesday morning 8:30 AM to completion)**
 1. **Clause 85, 40GBASE-CR4 and 100GBASE-CR10**
 2. **Backplane Clauses 69, 74, 84, Annexes 69A, 69B**
 3. **Annex 83A, 83B 40 Gb/s (XLAUI) and 100 Gb/s (CAUI) interfaces**
- **Priority**
 - **Review T/TRs for each clause**
- **Comment status**

Clause/Annexes	Editor	TR	T	ER	E	Total
85	Chris DiMinico	43	53	48	50	138
69,69A,69B,84	Aurthur Marris	24	15	18	7	64
83A,84A	Ryan Latchman	33	53	17	14	117
						319

Key items clause 85

Test points and transfer functions; normative/informative

- Normative: Cable assembly – [TP1 and TP4], Transmitter [TP2], Receiver [TP3]
- Informative: Channel – [TP0 to TP5], Tx and Rx PCB boards [TP0 to TP1] and [TP4 to TP5]
- TP2 testing – (1) TWDP, (2) Transfer Tx parameters to TP2, extract IL
- TP3 testing [interference tolerance test]

Test Fixtures

- TP2, TP3 – Transmit and receiver
- TP2 and TP4 – cable assembly

CR10 connector

- contacts lane assignments

Frequency range (min): cable assembly and channel

Cable Assembly

- testing and specification refinements

Channel

- specification refinements - upper bound for crosstalk of short channels

Tx and Rx PCB

- minimum and maximum PCB loss and testing

Key items Annexes 83A, 83B

Annex 83A:

- Proposed updates with respect to values for:
 - compliance point loss budget
 - de-emphasis range
 - FR4 receiver stress amount

Annex 83B:

- Proposed updates with respect to values for
 - Compliance point loss budget
 - FR4 receiver stress amount
 - De-emphasis range
 - Crosstalk specification

Presentations in support of comments

<u>Comment#74: Clause 73 exchange of DME frames not needed for frontpanel ports</u>	Piers Dawe	Avago
<u>Comment#394,395,401,402,403,417: Accurately Defining the CR4/CR10 Test Points</u>	Ali Ghiaisi	Broadcom
<u>Comment#396,398,400: Comprehensive TP2 and TP3 Testing</u>	Ali Ghiaisi Vivek Telang Magesh Valliappan	Broadcom
<u>Comment#405,407-12, 419-20: Refinement to XLAUI/CAUI Electrical Specifications</u>	Ali Ghiaisi	Broadcom
<u>Comment#476: Mode Transformation Mode Transformation for 40GBASE-R and 100GBASE-R</u>	Chang Y.F. Zhou X.J. Wu C.B.	ZTE
<u>Comment#697: CR4 and CR10 TP2 Specifications</u>	Briam Misek Charles Moore	Avago
<u>Comment#700: CR4 and CR10 TP3 Specifications</u>	Charles Moore Briam Misek	Avago
<u>EyeMax 3m 28 AWG Cable Assembly Vs IEEE P802-3ba Spec. Draft 2.0</u>	Vittal Balasubramania	FCI

Presentations in support of comments

[Material related to Comments on Fig. 83A-13 and 83B-3](#)

Ernie Bergmann

JDSU

CR test fixture proposal

Tom Palkert

Xilinx

CR4/10 TP2/TP3 normative specification proposal

Tom Palkert

Xilinx