

Confirmed Meeting Minutes: IEEE P802.3bq 40GBASE-T Task Force  
July 16, 2013  
Geneva, Switzerland

Prepared by George Zimmerman

IEEE P802.3bq 40GBASE-T Task Force meeting convened at 08:33AM, Tuesday, July 16, 2013 by David Chalupsky, 802.3bq Task Force Chair.

Attendance is listed in Appendix A

**ADMINISTRATIVE MATTERS**

**Presentation:** [agenda\\_3bq\\_01a\\_0713.pdf](#)

**Presenter:** Dave Chalupsky, Chair.

The Chair called for introductions and affiliations, and a short joke, song or limerick.

The Chair reviewed the agenda. Mr. Chalupsky turned to presentation [agenda\\_3bq\\_01a\\_0713.pdf](#) and reviewed the schedule of presentations for the meeting.

**Motion #1:** Approve the agenda as shown in [agenda\\_3bq\\_01a\\_0713.pdf](#)

**M:** Hugh Barrass

**S:** Paul Vanderlaan

**Approved by voice vote without opposition (Procedural > 50%)**

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**Motion #2:** Approve the minutes from the May meeting

[http://www.ieee802.org/3/bq/public/may13/Unconfirmed\\_minutes\\_0513\\_40GBT.pdf](http://www.ieee802.org/3/bq/public/may13/Unconfirmed_minutes_0513_40GBT.pdf)

**M:** Ron Nordin

**S:** Pete Cibula

**Approved by voice vote without opposition (Procedural > 50%)**

The Chair then resumed the review of presentation [agenda\\_3bq\\_01a\\_0713.pdf](#):

- Mr. Chalupsky asked if anyone was attending from the press including those who would run a public blog on this meeting. (There were no responses)
- Mr. Chalupsky noted that there should be no recording or photography without permission.

Mr. Chalupsky reviewed the goals for the meeting, access to the reflector and website, and ground rules.

**Attendance**, Mr. Chalupsky advised the group of the IEEE meeting attendance tool and procedures, including both the attendance book and the web attendance tracking tool.

**IEEE Patent Policy**, at 8:58am, Mr. Chalupsky showed slides 0 through 4 patent policy from agenda\_3bq\_01a\_0713.pdf . Mr. Chalupsky read aloud slides. Mr. Chalupsky made the call for potentially essential patents at 09:01 am, and none responded. Mr. Chalupsky then completed the reading of slide #4.

Mr. Chalupsky then continued review of the presentation, Big Ticket items for this meeting, and a possible project timeline.

### **LIAISONS**

The Chair moved to liaisons, and announced that no new incoming liaisons had been received since the last meeting

Response to the prior ISO/IEC JTC1 SC25 WG3 liaison will be on the agenda for this meeting and approval is planned to be on the 802.3 agenda for the closing plenary.

The Chair completed review of the presentation noting the project objectives which were unchanged from the prior meeting.

### **PRESENTATIONS**

The Chair then moved to the presentations for the meeting.

**Title:** Architectural issues for 40GBASE-T ([barrass 3bq 01 0713.pdf](#))  
**Abstract:** This presentation discusses a number of architectural issues relating to the segmentation of the PCS and PMA and discussed how they would relate both to prior BASE-T PHYs and to the 40/100G architecture in the 802.3 standard. Architectural options are suggested, and discussed relative to impacts on the 40/100G architecture, Energy Efficient Ethernet and (possible) Fast Retrain.  
**Presenter:** Hugh Barrass, Cisco Systems

**Title:** Special Study Global Data Centres End-user Results Copper Cabling Extracts ([flatman 3bq 01 0713.pdf](#))  
**Abstract:** This presentation shares extracts from a recent survey conducted by BSRIA which examines the installed base of twisted pair cabling plus plans to install 10G ready twisted pair cabling by Category in data centres of different sizes. The main focus is Category 7A.  
**Presenter:** Alan Flatman, LAN Technologies (independent)  
**Co-Author:** Lone Hansen, BSRIA.

**Title:** Channel Modeling Ad Hoc Report ([cibula 3bq 01 0713.pdf](#))  
**Abstract:** Report of activities of the 802.3bq channel modeling ad hoc, by Pete Cibula, co-chair.  
**Presenter:** Pete Cibula, Intel, Co-chair 802.3bq channel modeling ad hoc  
**Co-Author:** Brad Booth, Independent, Co-chair 802.3bq channel modeling ad hoc

**Title:** 40GBASE-T PHY-Channel Insertion loss ([diminico\\_3bq\\_01\\_0713.pdf](#))  
**Abstract:** The presenter reviewed data previously submitted to the 802.3bj task force, as well as some material presented to the channel modeling ad hoc. Based on that data, the presenter proposed an insertion loss budget for the PHY-channel, including PCB, MDI, and cabling channel losses.  
**Presenter:** Chris Diminico, MC Communications, Panduit

BREAK AT 10:36AM AND RECONVENED AT 11:03AM.

**Title:** Impact of Channel Configuration to RL ([rossbach\\_3bq\\_01\\_0713.pdf](#))  
**Abstract:** This presentation presents modeling data which suggests to use a minimum length of 2m cordage so that Channel RL requirements can be further tightened to enable power savings.  
**Presenter:** Martin Rossbach, Nexans

The next presenter asked permission of the group to update the presentation from the submitted version, adding an additional slide showing the internal construction of a magjack. There was no objection, so version "1a" of the presentation was shown.

**Title:** Improved Transmission Characteristics of Channels using IEC Standard Connectors Test Data and Information ([beloposky\\_3bq\\_01a\\_0713.pdf](#))  
**Abstract:** The contribution provides test data for copper cable channels utilizing the standard connectors per IEC/ISO 61076-3-110 in support of 40GbE. The data covers short channels 1-5-1 m as well as longer channels up to 50m. Tests information covers 2 GHz and 3 GHz spectra. It demonstrated that significant improvement in RL (10 to 12 dB) and NEXT (up to 30 dB) can be achieved. It is believed that improved channel performance may reduce energy consumption, reduce the PHY complexity and accelerate implementation of 40GbE technology. The channels were built using the materials and components provided by Bel, Nexans, BerkTek and Tyco.  
**Presenter:** Yakov Belopolsky, Bel Stewart

There was discussion regarding the various descriptions of connector standards. The posted presentation was modified both to add the new slide and to reflect comments made on the connector standards slide during the presentation.

THE GROUP BROKE FOR LUNCH AT 12:30PM AND RECONVENED AT 2:32PM

**Title:** Some Data on Production Channels and Components and Prototype Components ([larsen\\_3bq\\_01a\\_0713.pdf](#))  
**Abstract:** Data from products conforming to existing cabling standards, but measured to 2000 MHz, and data from prototypes designed for use to 2000 MHz, are compared.  
**Presenter:** Wayne Larsen, Commscope

**Title:** Cabling Return Loss ([larsen 3bq 02a 0713.pdf](#))  
**Abstract:** An illustration of hope to homologate return loss requirements among cabling standards under development, and thereby reduce the PHY modeling complexity.  
**Presenter:** Wayne Larsen, Commscope

**Title:** A Quick Look at Connectors ([larsen 3bq 03a 0713.pdf](#))  
**Abstract:** Historical perspective of the RJ-45 and other structured cabling connectors, their interoperability and market penetration.  
**Presenter:** Wayne Larsen, Commscope

**Title:** Cabling Developments in Support of 40GBASE-T ([larsen 3bq 04a 0713.pdf](#))  
**Abstract:** A high level comparison of cabling standards under development in different committees to support 40GBASE-T  
**Presenter:** Wayne Larsen, Commscope

**Title:** Expected Performance of ISO/IEC Class II Cabling ([maquire 3bq 01 0713.pdf](#))  
**Abstract:** This presentation summarizes the draft class II channel parameters specified in ISO/IEC PDTR 11801-99-1, dated 2013-07-19. The category 8.2 connecting hardware specified for use in Class II cabling is described as well as intermateability and backward compatibility between both category 8.2 connecting hardware and legacy systems.  
**Presenter:** Valerie Maguire, Siemon Company

**Title:** Class I vs. Class II Cabling ([flatman 3bq 02 0713.pdf](#))  
**Abstract:** This is a comparison of Class I and Class II cabling as defined by ISO/IEC PDTR 11801-99-1. The comparison focuses on transmission performance but also includes a brief review of candidate connectors, differences in cable dimensions and relative costs of a 30m, 2-connector channel.  
**Presenter:** Alan Flatman, LAN Technologies

(THE FINAL TWO PRESENTATIONS WERE WITHDRAWN BECAUSE THE PRESENTER WAS UNABLE TO ATTEND. THEY ARE INCLUDED FOR THE ABSTRACT INFORMATION ONLY, AS THEY ARE POSTED ON THE WEBSITE)

**Title:** Link Definitions and Testing ([brillhart 3bq 02 0713.pdf](#)) (WITHDRAWN)  
**Abstract:** Review of link definitions, terminology, and disparities. This presentation includes a proposal for a new link definition that removes disparities and shows advantages for specification, field testing, and certification of installed cabling.  
**Author:** Theo Brillhart, Fluke Networks (NOT PRESENT)

**Title:** Field Tester Capability for Balance Measurement  
([brillhart\\_3bq\\_01\\_0713.pdf](#))  
**Abstract:** This presentation highlights developments with respect to field testing of TIA 568 balance requirements, such as TCL and ELTCTL, and other cable balance measurements also possible in the field.  
**Author:** Theo Brillhart, Fluke Networks (NOT PRESENT)

The group then proceeded to review and edit the draft liaison response to ISO/IEC JTC1 SC25 WG3. Alan Flatman presented an initial draft, which the group edited.

### **DISCUSSION, MOTIONS & STRAW POLLS**

**Motion #3:** Move that the P802.3bq Chair submit the following motion to the IEEE 802.3 Working Group:

- Move that IEEE 802.3 approve the text in IEEE\_802d3\_to\_ISOIEC\_SC25\_WG3\_0713.pdf, with editorial license granted to the Chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to ISO/IEC SC25 WG3)

**Procedural >50%**

**M:** Brad Booth                                   **S:** George Zimmerman  
**(All in the room) Yes: 24 No: 0 Abstain: 1 (MOTION PASSES)**

The chair then entertained a suggestion from Brad Booth to send a liaison to TIA TR42.7. The letter was edited in real time.

**Motion #4:** Move to approve the text in IEEE\_802d3\_to\_TIATR42\_0713.pdf, with editorial license granted to the Chair (or his appointed agent), as a liaison communication.

**Procedural >50%**

**M:** Valerie Maguire                           **S:** George Zimmerman  
**(All in the room) Yes: 16 No: 2 Abstain: 6 (MOTION PASSES)**

### **OTHER ADMINISTRATIVE BUSINESS**

#### **Future Meetings Straw Poll**

**Straw Poll #1:**  
Will you attend the Sept. 2013 Interim meeting in York  
YES! - 14  
Maybe - 7  
NO! - 4

Straw Poll #2:

Will you attend the November 2013 plenary meeting in Dallas

YES! - 20

Maybe - 3

NO! - 3

**Adjournment**

**Motion #5: To adjourn the meeting.**

**M: Paul Vanderlaan      S: Keith Kosanovich**

**MOTION PASSES by voice without opposition**

**The Meeting was adjourned at 6:01 PM.**

Appendix A: Attendees at the IEEE P802.3bq 40G BASE-T Task Force Meeting, July 16, 2013

Total attended:	28		Daily # attended:	28
<b>IEEE P802.3bq 40GBASE-T Task Force July 2013</b>				7/16/2013
<b>Last Name</b>	<b>First Name</b>	<b>Employer</b>	<b>Affiliation</b>	<b>Tuesday</b>
Barrass	Hugh	Cisco	Cisco	X
Belopolsky	Yakov	Bel Stewart	Bel Stewart	X
Booth	Brad	Independent	Independent	X
Chalupsky	David	Intel	Intel	X
Cibula	Pete	Intel	Intel	X
Diab	Wael	Broadcom	Broadcom	X
Flatman	Alan	LAN Technologies	LAN Technologies	X
Forbes	Harry	Nexans	Nexans	X
Grimwood	Michael	Broadcom	Broadcom	X
Hammond	Bernard	TE Connectivity	TE Connectivity	X
Jimenez	Andrew	Anixter Inc.	Anixter Inc.	X
Kosanivich	Keith	Leviton Network Solutions	Leviton Network Solutions	X
Kupec	Jan	Reichle & De-Massari AG	Reichle & De-Massari AG	X
Lackner	Hans	QoSCom Gmbh	QoSCom Gmbh	X
Larsen	Wayne	Commscope	Commscope	X
Maguire	Valerie	Siemon	Siemon, TIA	X
Maynes	Curt	3M	3M	X
Mulder	Jan	Broadcom	Broadcom	X
Nordin	Ron	Panduit Corp.	Panduit Corp.	X
Poloni	Angelo	ST Microelectronics	ST Microelectronics	X
Roszbach	Martin	Nexans	Nexans	X
Saner	Martin	SNT Saner Netzwerk-technik	SNT Saner Netzwerk-technik	X
Vaden	Sterling	Optical Cable Corp.	Optical Cable Corp.	X
Vanderlaan	Paul	Nexans	Nexans	X
Wagner	Bob	Panduit Corp.	Panduit Corp.	X
Wardin	Joerg	3M	3M	X
Wu	Peter	Marvell	Marvell	X
Zimmerman	George	CME	Commscope, Aquantia	X