Unconfirmed Meeting Minutes: IEEE P802.3bq 40GBASE-T Task Force
September 9-10, 2014
Kanata, ON, Canada

Prepared by George Zimmerman

IEEE P802.3bq 40GBASE-T Task Force meeting convened at 09:24 AM, Tuesday, September 9, 2014 by David Chalupsky, 802.3bq Task Force Chair.

Attendance is listed in Appendix A

ADMINISTRATIVE MATTERS
Presentation: agenda_3bq_01_0914.pdf
Presenter: Dave Chalupsky, Chair.

The Chair called for introductions and affiliations, but jumped right into the agenda.

The Chair reviewed the agenda. Mr. Chalupsky turned to presentation agenda_3bq_01_0914.pdf and reviewed the schedule of presentations for the meeting.

The Chair discussed that because there had been a communications error as to whether the meeting would be held Tuesday/Wednesday or Wednesday/Thursday, motions other than administrative and agenda related will be handled Wednesday morning.

Motion #1:   Approve the agenda from agenda_3bq_01_0914.pdf, with modifications noted: that motions other than administrative and agenda related will be delayed until Wednesday morning; discussion of 25G, if approved, will be heard Wednesday morning

M: Bob Wagner   S: Paul Vanderlaan
Approved by voice vote without objection (Procedural > 50%)

Motion #2:   Approve the minutes from the July 2014 meeting (http://www.ieee802.org/3/bq/public/jul14/unconfirmed_minutes_3bq_0714.pdf)

M: Bob Wagner   S: Valerie Maguire
Approved by voice vote without objection (Procedural > 50%)

The Chair then revisited the call for introductions and affiliations, and participants introduced themselves.

The Chair then resumed the review of presentation agenda_3bq_01_0914.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 indications from the group.

•	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.
Mr. Chalupsky then continued review of the presentation, Big Ticket items for this meeting.

**Motion #3:	The task force allows presentation of and discussion on the submitted 25G presentations after all 40G business is concluded**

**M:	Bob Wagner	S:	G. Zimmerman**
Procedural (> 50%)

Approved by voice vote without objection (Procedural > 50%)

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 **9:54 AM**, Mr. Chalupsky showed slides 0 through 4 patent policy from agenda_3bq_01_0914.pdf. Mr. Chalupsky showed slide 0 and read aloud slides 1 through 4. Mr. Chalupsky made the call for potentially essential patents at **9:57 AM**, and none responded. Mr. Chalupsky then completed the reading of slide #4.

Mr. Chalupsky then continued review of the presentation, discussing that the group was near entering the "Task Force Review" phase where we would be primarily comment driven.

LIAISONS
The Chair moved to liaisons, and noted an informal liaison from TIA to 802.3 which Mr. Law, Chair of the 802.3 Working Group had assigned to the Task Force. (see TR42-2014-10-101_Outgoing_Category_8_Liaison_to_IEEE_802%203.pdf

The liaison indicated Draft 2.0c ANSI/TIA-568-C.2-1(the TIA Category 8 specification) had been liaised to IEEE 802.3 from TIA TR42, and that the draft had been posted to the private area of the Task Force website.

A participant asked what changes were in the new draft, relative to 2.0b, and Valerie Maguire (incoming liaison from TR42.7 to IEEE 802.3) provided the answer was that there were a small number of corrections to errors (mainly references and the date) from 2.0b to 2.0c.

The Chair completed review of the presentation noting the project objectives which were unchanged from the prior meeting, and since the group has been in Task Force.

BREAK AT 10:08 AM UNTIL 10:32 AM

PRESENTATIONS

The Chair then moved to the presentations for the meeting. (Secretary's note – where significant group discussion occurred, particularly involving future actions, a summary of any follow-on points is provided. Abstracts are given as a guide to the presentation material, where possible, these are as provided by authors.)

Title: Installation Practices for Screened Cabling (flatman_3bq_01_0914.pdf)
Abstract: This contribution provides A brief tutorial on requirements & best practices defined by: ISO/IEC 11801 Generic Cabling Systems, ISO/IEC 14763-2 Planning & Installation of Cabling Systems, and CENELEC EN 50174-2 Installation Planning & Practices for Cabling Inside Buildings
Presenter: Alan Flatman, LAN Technologies (Independent)
Discussion: .The presenter offered that those interested in more data could request it of him and he would provide a larger slide deck with additional information on screened cabling practices. There was some discussion of how these tests related to cabling systems, and were independent of equipment tests. Other EMC test standards, e.g., CISPR22 or CISPR24 tests, would govern equipment under test. The presenter noted that the documents were available for purchase from the international standards organizations.

At 10:05 AM Mr. Diminico assumed secretary role so Mr. Zimmerman could present.

Title: P802.3bq PHY Baseline Ad Hoc Report (zimmerman_3bq_02_0914.pdf)
Abstract: The presenter described the status and next steps for the PHY baseline ad hoc. The ad hoc had not met since the July plenary, and, has only a few remaining items.
Presenter: George Zimmerman, CME Consulting / Aquantia & Commscope, Chair 802.3bq PHY Baseline Proposal ad hoc
Discussion: No contribution since July. Presenter proposes ad hoc work is complete, and revisions best served in draft process, Except for cable clamp extensions or replacement. Presenter proposes: PHY baseline Ad hoc to meet on basis of contribution received. Question on status of EEE, potential augmentations but could be done in task group review.
Outcome: Suggest PHY baseline ad hoc group go into hibernation and consider Pete Cibula as ad hoc chair to consider cable clamp extensions or replacement deferred until Wednesday morning when major business items would be decided.

Title: 802.3bq Editor's Report (zimmerman_3bq_01_0914.pdf)
Abstract: The editor reported on the status and comments received of the draft 0.8. Proposed resolutions to the comments were discussed.

Presenter: George Zimmerman, CME Consulting / Aquantia & Commscope, Chief Editor IEEE 802.3bq

Discussion: The presenter solicited editors for EEE and architectures, and noted the following:

- indicated changes due to architecture will be discussed this meeting.
- Editor's note missing on Cl55 text on MDI indicating state of adoption
- Big ticket items: MDI Link Segment parameters, PCS and architecture
- In future comment tool will structure input...cl#,pg#, etc....

LUNCH BREAK AT 12:10PM, RECONVENED AT 1:33PM

Mr. Zimmerman resumed recording secretary, acting as editor and recording resolutions during comments.

During the course of comment resolution, the following contributions were heard:

Title: 40GBASE-T Link Segment Specifications (diminico_3bq_01_0914.pdf)
Abstract: This contribution provides proposals to resolve comments related to 98.7 and fill in additional cabling transmission parameters.
Presenter: Chris Diminico, MC Communications / Panduit
Discussion: See resolved comment files.

Mr. Larsen indicated (via email) that the following contribution related to IL was withdrawn: Equation Simplification (larsen_3bq_03a_0914.pdf)
Abstract: This contribution provides proposals to resolve comments related to 98.7 and fill in additional cabling transmission parameters.

Title: Cabling Transmission Parameters (larsen_3bq_01a_0914.pdf)
Abstract: This contribution provides proposals to resolve comments related to 98.7 and fill in additional cabling transmission parameters.
Presenter: George Zimmerman, CME Consulting/Commscope, for Wayne Larsen, Commscope
Discussion: See resolved comment files.

Title: MDI (larsen_3bq_02a_0914.pdf)
Abstract: This contribution provides a proposal to resolve comments related to 98.8 and select an MDI specification.
Presenter: George Zimmerman, CME Consulting/Commscope, for Wayne Larsen, Commscope
Discussion: Comments on the MDI were deferred for resolution

MEETING RECESSED AT 5:55PM TO RESUME AT 9AM WEDNESDAY

THE MEETING RECONVENED WEDNESDAY SEPTEMBER 10, 2014 AT 9:02 AM

The chair briefly reviewed the agenda presentation, particularly reviewing the following items:

• Mr. Chalupsky asked if anyone was attending from the press including those who would run a public blog on this meeting – there were no indications from the group.
• 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 **9:11 AM**, Mr. Chalupsky showed slides 0 through 4 patent policy from agenda_3bq_01_0914.pdf. Mr. Chalupsky showed slide 0 and read aloud slides 1 through 4. Mr. Chalupsky made the call for potentially essential patents at **9:13 AM**, and none responded. Mr. Chalupsky then completed the reading of slide #4.

The Chair reminded that the group had a liaison response pending, which had been previewed the previous day.

The Chair then resumed the agenda of presentations for meeting.

Title: 40GBASE-T RJ45 ICM_rev2 (chiang_3bq_01_0914.pdf)
Abstract: This contribution provides updated results on an RJ45-based integrated connector-magnetics (ICM).
Presenter: Jerry Chiang, Foxconn Interconnect Technologies , co-authors Roger Xu & Anna An
Discussion: There were questions of clarification and details of the test setup asked and answered. A participant also asked for information on shield effectiveness of a mated RJ45 connection. Another participant answered that the primary work for that is occurring in cabling standards groups and might be provided offline.

DISCUSSION OF 25GBASE-T
Having concluded the presentations and comment resolution for 40GBASE-T, the Chair moved the discussion to the presentations on 25GBASE-T, noting that motions and straw polls would be covered under closing business.
The contributions related to a path forward to a possible inclusion of 25GBASE-T in the PAR and Objectives.

Title: 25GBASE-T Considerations (wagner_3bq_01a_0914.pdf)
Abstract: This contribution provides information and a concept for technical feasibility of 25GBASE-T relative to 40GBASE-T.
Presenter: Bob Wagner, Panduit

Discussion: There was some discussion of the benefits of changing as little as possible in the existing 40GBASE-T draft to provide a rapid transition to 25GBASE-T with little market confusion, especially in cabling lengths. A participant expressed concern that the 30m reach of 40GBASE-T might not be enough for some portion of the market.

Title: 25G Objective Modifications and Roadmap (chalupsky_3bq_01_0914.pdf)
Abstract: This contribution provides information on the process and possible modifications to the objectives and PAR for 802.3bq to consider 25GBASE-T.
Presenter: Dave Chalupsky, Intel
Discussion: As part of the discussion, the presenter asked for the following straw poll.

Straw Poll #3:
I would support expanding the scope of P802.3bq to include 25GBASE-T
Y: 24
N: 0
A: 0
(room count is 24)

THE GROUP RECESSED FOR A BREAK AT 10:22AM AND RECONVENED AT 10:50AM

DISCUSSION, MOTIONS & STRAW POLLS
Having concluded the presentations for the meeting, the Chair then moved to discussion, motions and (additional) straw polls.

Prior to motions, George Zimmerman asked the Chair and the group for permission to make the following presentation aimed at reflecting consensus on closing additional comments. The Chair and the group consented.

Title: PSNEXT/PSACRF Compromise Proposal (zimmerman_3bq_03a_0914.pdf)
Abstract: This contribution details a compromise proposal to resolve differences in in ISO Class I and TIA Category 8 PSNEXT.
Presenter: George Zimmerman, CME Consulting

Motion #4: **Instruct the editor to revert the draft text to be based on a classic BASE-T architecture, with XLGMII as the reference (option 1 in barrass_3bq_01_0713.pdf)**
M: **George Zimmerman** **S:** **William Lo**
Technical (> 75%)
Y: 19 N:0   A: 3
MOTION PASSES

Motion #5: Move to accept comment resolutions in resolved_d0p8_Comments_byClause.pdf into the 802.3bq baseline draft
M: George Zimmerman   S: Chris Diminico
Technical (> 75%)
Y: 20 N:0   A: 2
MOTION PASSES

Motion #6: Move that 802.3bq accept the equations for PSNEXT and PSACRF on slides 5 & 6 of zimmerman_3bq_03a_0914.pdf as baseline text for the link segment PSNEXT and PSACRF requirements, with editorial license to make the equations consistent with 802.3 draft
M: George Zimmerman   S: Chris Diminico
Technical (> 75%)
Y: 18 N:1   A: 3
MOTION PASSES

Motion #7: Move that 802.3bq include the RJ-45 as reflected in IEC 60603-7-51 (published) with the improved characteristics and frequency extensions specified in 60603-7-81 (currently CDV draft) as an MDI interface
M: Jerry Chiang   S: Peter Wu
Technical (> 75%)

During the debate on Motion #7, the language "include" as "an MDI" was clarified to indicate that Motion #7 should not be interpreted to preclude additional MDI connectors being added to the draft.
Discussion of motion #7 included concern that the shield effectiveness of this connector had not been demonstrated. One participant announced intention to perform such testing with a goal of sharing results at the November meeting (if materials to test are available in time).   Several also noted that if the results indicated a problem for 40GBASE-T performance then a potential path forward would be to liaise the concern to the IEC body that owns connector specifications..

During the course of debate, the following motion was made:

Motion #8: Move to defer motion #7 until November 2014
M: Valerie Maguire   S: Neven Pischl
Procedural (> 50%)
Y: 7   N:13   A: 2
MOTION FAILS

Debate continued on Motion #7, until the question was called by Richard Mei:
Motion #9: Calling the question on Motion #7
M: Richard Mei S: Jerry Chiang
Procedural (> 50%)
Y: 10 N:4   A: 9
MOTION PASSES – THE QUESTION IS CALLED

Returning to the vote on Motion #7:

Motion #7: **Move that 802.3bq include the RJ-45 as reflected in IEC 60603-7-51 (published) with the improved characteristics and frequency extensions specified in 60603-7-81 (currently CDV draft) as an MDI interface**
M: **Jerry Chiang**   **S:** **Peter Wu**
Technical (> 75%)
Y: 14 N:6   A: 3
MOTION FAILS

Following this, the following motion was considered:

Motion #10: **Move to amend the text of Table 98-17 to read, under cabling: "ISO Class I / ISO Class II / TIA Category 8"**
M: **Alan Flatman**   **S:** **George Zimmerman**
Technical (> 75%)
Y: 17 N:0   A: 5
MOTION PASSES

Following this motion, the Chair allowed a 5 minute break for parties to consider how to move forward towards a draft in light of the failure of Motion #7, and therefore the lack of a completed MDI section of the draft.

After the break, the following motion was made:

Motion #11: **Motion to reconsider Motion #7**
M: **Tom Souvignier**   **S:** **Chris Diminico**
Procedural (> 50%)
Y: 16 N:3   A: 4
MOTION PASSES
(Note – the mover was on the prevailing side for Motion #7, per procedure)

This brought back the consideration of Motion #7, as Motion #12

The secretary & Editor then noted that he understood the language of the motion not to preclude additional MDI's should they be offered in the future.

Motion #12 (Motion #7 reconsidered):
Move that 802.3bq include the RJ-45 as reflected in IEC 60603-7-51 (published) with the improved characteristics and frequency extensions specified in 60603-7-81 (currently CDV draft) as an MDI interface
M: **Jerry Chiang**   **S:** **Peter Wu**
Technical (> 75%)
Y: 16 N:5   A: 2
MOTION PASSES

Motion #13: **Instruct the editor to prepare P802.3bq D1.0 for preview by the Task Force prior to October 2, 2014**
M: Brett McClellan S: Richard Mei

Technical (>75%)
Y: 17 N: 0   A: 3
MOTION PASSES

No further motions of business were offered.

AD HOC CHARTERS

The Chair noted that the PHY baseline proposal ad hoc was in hibernation, and that he chartered a new ad hoc, to be chaired by Pete Cibula investigating the common mode noise rejection test (aka – cable clamp test).

OTHER ADMINISTRATIVE BUSINESS

The Chair then discussed future meetings.
Straw Poll on future meetings

I will be attending:

November 8-12, 2014 Plenary, San Antonio, Texas, USA
> Y: 17
> N: 1
> Maybe: 3

January 12, 2015 Interim Week, Atlanta, Georgia, USA
> Y: 12
> N: 0
> Maybe: 7

Having completed the business of the meeting the Chair entertained a motion to adjourn.

Adjournment
Motion #:13 To adjourn the meeting.
M: Brett McClellan S: Richard Mei
MOTION PASSES by voice without opposition
The Meeting was adjourned at 12:17PM, Wednesday, September 10, 2014.

Appendix A: Attendees at the IEEE P802.3bq 40G BASE-T Task Force Meeting, September 8-9, 2014

Total attended:	28			Daily # attended:	23	25
IEEE P802.3bq 40GBASE-T Task Force September 2014					**9/9/2014**	**9/10/2014**
Last Name	**First Name**	**Employer**	**Affiliation**		**TUESDAY**	**WEDNESDAY**
Chalupsky	David	Intel	Intel		x	x
Cheng	Xiao Guang	Lenovo	Lenovo		x	x
Chiang	Jerry	Foxconn Interconnect Tech	Foxconn Interconnect Tech		x	x
Choudhury	G. Mabud	Commscope	Commscope		x	x
DiMinico	Christopher	MC Communications	Panduit		x	x
Dinh	Thuyen	Pulse Electronics	Pulse Electronics		x	
Donahue	Curtis	UNH - IOL	UNH - IOL		x	
Flatman	Alan	LAN Technologies	LAN Technologies		x	x
Graba	Jim	Broadcom	Broadcom		x	
Hammond	Bernard	TE Connectivity	TE Connectivity		x	x
Hsiao	Marcos	Wurth Electronics	Midcom			x
Huang	Liang-wei	Realtek	Realtek			x
Kish	Paul	Belden	Belden		x	x
Lewis	Jon	Dell	Dell		x	x
Lo	William	Marvell	Marvell		x	x
Maguire	Valerie	Siemon	Siemon		x	x
Malkemus	James	General Cable	General Cable			x
McClellan	Brett	Marvell	Marvell			x
Mei	Richard	Commscope	Commscope		x	x
Pischl	Neven	Broadcom	Broadcom			x
Renteria	Victor	Belfuse Inc	Belfuse Inc		x	x
Rossbach	Martin	Nexans	Nexans		x	x
Salunke	Vineet	Cisco	Cisco		x	x
Souvignier	Tom	Broadcom	Broadcom		x	x
Vanderlaan	Paul	Berk-Tek LLC	Berk-Tek LLC		x	x
Wagner	Bob	Panduit Corp.	Panduit Corp.		x	x
Wu	Peter	Marvell	Marvell		x	x
Zimmerman	George	CME	Commscope, Aquantia		x	x