

Unconfirmed Meeting Minutes: IEEE 802.3 Next Generation BASE-T Study Group  
March 19-22, 2013  
Orlando, Florida USA

Prepared by George Zimmerman

IEEE 802.3 Next Generation BASE-T Study Group Plenary meeting convened at 09:17AM, Tuesday, March 19, 2013 by Dave Chalupsky, Vice Chair of NGBASE-T Study Group, as Acting Chair (on the telephonic instructions of Bill Woodruff, Chair of the NGBASE-T Study Group).

Attendance is listed in Appendix A

Administrative Matters

Mr. Chalupsky appointed George Zimmerman as recording secretary for this session.

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Presentation: agenda\_01\_0313.pdf

Presenter: Dave Chalupsky, Acting Chair.

The Acting Chair called for introductions and affiliations.

The Chair reviewed the agenda. Mr. Chalupsky turned to presentation agenda\_01\_0313.pdf and reviewed the schedule of presentations for the meeting.

**Motion #1: to approve the agenda as shown in agenda\_01\_0313.pdf**

**M: Wayne Larsen                    S: Ron Nordin**

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

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The Acting Chair then asked for comments or corrections to the minutes of the last meeting.

**Motion #2: to approve the minutes for the January Interim meeting of the NGBASE-T Study Group with correction to date in attendance list ( [http://www.ieee802.org/3/NGBASET/public/jan13/Unconfirmed\\_minutes\\_0113\\_NGBT.pdf](http://www.ieee802.org/3/NGBASET/public/jan13/Unconfirmed_minutes_0113_NGBT.pdf) )**

**M: Wayne Larsen                    S: Ron Nordin**

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

The Acting Chair then resumed the review of presentation agenda\_01\_0313.pdf.

- Mr. Chalupsky asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.
- Mr. Chalupsky noted that there should be no recording or photography without permission.

**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.

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Mr. Chalupsky then turned the meeting over to the Bill Woodruff, Chair of the NGBASE-T Study Group.

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

**IEEE Patent Policy**, Mr. Woodruff read aloud the patent policy for study groups from agenda\_01\_0313.pdf, page entitled “Guidelines for IEEE-SA Meetings” (09:36am).

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#### *LIAISONS*

The Chair moved to liaisons received by 802.3 which had been forwarded to the study group by Mr. Law.

Two liaisons from the TIA TR-42.7 to the IEEE 802.3 Working Group

- <http://www.ieee802.org/3/minutes/mar13/incoming/TR42d7-2013-02-004-LiaisonTo802d3.pdf>
- [http://www.ieee802.org/3/minutes/mar13/incoming/TR42-2013-02-052A\\_Liaison\\_to\\_802d3.pdf](http://www.ieee802.org/3/minutes/mar13/incoming/TR42-2013-02-052A_Liaison_to_802d3.pdf)

The Chair noted that that there were no presentations related to the liaisons to be heard at this meeting (a presentation having been heard at the previous meeting), and the study group would likely prepare a response during the March plenary meeting.

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The chair called a break at 09:50AM to accommodate the availability of the next presenter and called the meeting back to order at 10:00AM.

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#### *PRESENTATIONS*

The Chair then moved to the presentations for the meeting.

Presentation #1: diminico\_01\_0313\_NGBT.pdf, “Next Generation Field Testing”.

Presenter: Chris DiMinico, MC Communications

Discussion: The presenter provided a discussion of field tester capabilities for next generation cabling at frequencies up to 2GHz.

Presentation #2: [diminico\\_02\\_0313\\_NGBT.pdf](#), “Next Generation BASE-T Link Segment”.

Presenter: Chris DiMinico, MC Communications

Discussion: The presenter provided some justification and a proposal to change the wording of the objective to replace the words “channel model” with “link segment”.

**Motion #3: Change the words “channel model” to “link segment” in the objectives beginning “Define a channel model” and “Define a single 40Gb/s PHY”**

M: George Zimmerman    S: Chris DiMinico  
(all in the room) Y: 32    N: 0    A: 1    (Technical >= 75%)

**MOTION PASSES**

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The chair called a break for 15 minutes at 10:38AM; meeting resumed at 11:00am  
Mr. Chalupsky assumed recording duties while Dr. Zimmerman presents.

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Presentation #3: [zimmerman\\_01\\_0313\\_NGBT.pdf](#), “Evaluating Power Sensitivity for Channel Impairments”

Presenter: George Zimmerman, CME Consulting

Discussion: The presenter discussed the elements contributing to analog front end dynamic range, which has been used to provide power estimates. At the NGBASE-T reach of 30m, the far end signal level tends to dominate the dynamic range requirement, and that generally Return Loss (or echo) is dominant impairment. The contribution investigates the impact of filtering and bandwidth on impairment contributions to dynamic range, as well as illustrating that reducing lesser impairments has diminishing returns on front-end power.

There was some discussion by the group for clarification of the results, as well as extending the results to other parameters, such as return loss.

Ron Nordin requests permission to use an updated version of their presentation. No objection from the room.

Recording duties returned to Dr. Zimmerman at 11:30am.

Presentation #4: [nordin\\_01a\\_0313\\_ngbt.pdf](#), “Method for improving Return Loss in order to reduce PHY power”

Discussion: The presenter presented measurements of short and long channels using connectors designed to achieve an improvement in return loss with backward compatibility to 10GBASE-T. Potential power savings and next steps were also discussed.

There was vigorous discussion by the group, including questions about the results, the switches in the jack used, next steps in cabling groups, and impacts on power and hybrid designs.

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Having completed the technical presentations, the chair then turned to the schedule for the rest of the meeting, before breaking for lunch.

- The group would recess, allowing an ad hoc (run by Mr. Woodruff) to consider preparing responses to the received liaisons during the recess after lunch at 2PM.
- The group also had received one comment on the PAR from 802.11, regarding the dates of working group ballot & sponsor ballot, which Mr. Diab discussed in detail. Final comments were due by 5PM Tuesday, necessitating a meeting the following day.

The study group then broke for lunch at 12:30PM, to reconvene Wednesday at 1PM.

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The meeting resumed at 1:10PM Wednesday, 20 March 2013  
Bill Woodruff, Chair of the Next Generation BASE-T Study Group called the meeting to order and asked for introductions and affiliations.

Mr. George Zimmerman continued as recording secretary for the session.

Mr. Woodruff briefly reviewed the presentation agenda\_01\_0313.pdf. He advised the group of the process for recording attendance, ground rules, access to the reflector & website.

IEEE Patent Policy, Mr. Woodruff showed the patent policy for study groups from agenda\_01d\_0113.pdf, page entitled "Guidelines for IEEE-SA Meetings" (01:17pm), and asked if any needed to have the patent policy read aloud, and heard no requests.

- Mr. Woodruff asked if anyone was attending from the press including those who would run a public blog on this meeting. None responded.
- Mr. Woodruff noted that there should be no recording or photography without permission.

Having no further presentations, the meeting proceeded to motions for business.

The Chair heard the following motions:

**Motion #4: Request 802.3 to provide an extension of the Next-Generation BASE-T Study Group**

**M: Wayne Larsen S: Paul Vanderlaan  
(all in the room) (Procedural >= 50%)**

**MOTION PASSES BY VOICE VOTE WITHOUT OPPOSITION**

Mr. Woodruff then presented a proposed liaison letter to TIA TR42 ([TIA draft response](#)) prepared the prior day by the ad hoc session. The file was then renamed to ngbt\_tia\_liaison\_response\_0313.pdf.

**Motion #5:** Move that the NGBASE-T Study Group Chair submit the following motion to the IEEE 802.3 Working Group: Move that IEEE 802.3 approve the text in [ngbt\\_tia\\_liaison\\_response\\_0313.pdf](#) with editorial license granted to the chair (or his appointed agent), as a liaison communication from the IEEE 802.3 Working Group to TIA.

**M: Dave Chalupsky      S: Keith Kosanovich**  
(all in the room)    (Procedural >=50%)

**Y: 30 N:0    A:2**

**MOTION PASSES**

Vice Chair, Mr. Chalupsky then reintroduced the subject of the comment received on our pre-submitted PAR, and made the following motion to address the comment:

**Motion #6:** Change PAR section 4.2 expected date of submission of draft to the IEEE-SA for initial Sponsor Ballot from 09/2015 to 08/2015 or earlier, with license to 802.3 WG Vice Chair or his delegate to implement as allowed by the PAR tool.

**M: Dave Chalupsky      S: Wayne Larsen**  
(all in the room)    (Technical >=75%)

**Y: 27 N:0    A:3**

**MOTION PASSES**

The chair then reviewed the 5 criteria responses previously approved by the study group.

**Motion #7:**

**Submit the amended project documentation to the 802.3 Working Group for approval.**

**Request that the 802.3 Working Group chair submit the amended PAR and 5 criteria responses to the 802 Executive Committee for consideration at the March 2013 Plenary Session. Should the IEEE 802.3 Working Group not approve the submission at its March 2013 meeting, it will be removed from the IEEE 802 Executive Committee agenda.**

**M: Wayne Larsen    S: George Zimmerman**  
(all in the room)    (Technical >=75%)

**Y: 27 N:0    A:2**

**MOTION PASSES**

OTHER ADMINISTRATIVE BUSINESS

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Straw Poll #1:

Will you attend the Interim meeting in Victoria, BC Canada the week of May 13, 2013

Yes: 18

Probably yes: 7

Probably no: 5

No: 0

Straw Poll #2:

Will you attend the Plenary meeting in Geneva, CH?

Yes: 12

Probably yes: 7

Probably no: 6

No: 2

Straw Poll #3:

Will you attend the Interim meeting in York

Yes: 10

Probably yes: 7

Probably no: 11

No: 1

**Adjournment**

**Motion #8: To adjourn the meeting.**

**M: Wayne Larsen S: Alan Nielsen**

**MOTION PASSES by voice without opposition**

**The Meeting was adjourned at 2:38PM 20-March 2013**

*Appendix A: Attendees at the IEEE 802.3 Next Generation BASE-T Study Group Interim Meeting, March 19-20, 2013*

Total attended:	39	Daily # attended:	35	29
<b>IEEE 802.3 Next Generation BASE-T Study Group March 2013</b>			<b>3/19/2013</b>	<b>3/20/2013</b>
Last Name	First Name	Affiliation	Tuesday	Wednesday
Abughazaleh	Shadi	Hubbell	X	X
Belopolsky	Yakov	Bel Stewart	X	
Berry	Joe	Belfuse	X	
Chalupsky	David	Intel	X	X
Chang	Jacky	HP	X	
Cibula	Pete	Intel	X	X
Dai	Shaoan	Marvell		X
Dalmia	Kamal	Aquantia	X	
Diab	Wael	Broadcom	X	
Forbes	Harry	Nexans	X	X
Grimwood	Michael	Broadcom	X	X
Hammond	Bernard	TE Connectivity	X	X
Herman	Todd	Commscope		X
Hess	Dave	Cord Data	X	X
Hueng	Yin	Qualcomm		X
Jimenez	Andrew	Anixter Inc.	X	X
Kawatsu	Yasuaki	Hitachi-Cable	X	
Kish	Paul	Belden	X	X
Kosanivich	Keith	Leviton Network Solutions	X	X
Lackner	Hans	QoSCom Gmbh	X	X
Larsen	Wayne	Commscope	X	X
Maguire	Valerie	Siemon, TIA	X	
Maynes	Curt	3M	X	X
Mooney	Paul	Spirent Communications	X	
Neveux	Paul	Superior Essex	X	X
Nielsen	Allan	TE Connectivity	X	X
Nordin	Ron	Panduit Corp.	X	
Nouri	Ahmad	Broadcom	X	X
Ruotolo	Frank	Legrand Ortronics	X	X
Sparrowhawk	Bryan	Leviton	X	X
Tellas	Ron	Panduit Corp.	X	X
Tremblay	David	HP	X	
Vaden	Sterling	Optical Cable Corp.	X	X
Valle	Stefano	ST Microelectronics		X
Vanderlaan	Paul	Nexans	X	X

Wagner	Bob	Panduit Corp.	x	x
Woodruff	Bill	Broadcom	x	x
Wu	Peter	Marvell	x	x
Zimmerman	George	CME Consulting, Commscope	x	x