

Approved Minutes
IEEE P802.3bj 100 Gb/s Backplane and Copper Cable Task Force
Plenary Meeting
November 13-15, 2012
San Antonio, TX, USA

Prepared by Kent Lusted (802.3bj Task Force, Tues-Thurs) & John D'Ambrosia (EEE Ad Hoc, Tues-Wed)
& Adam Healey (FEC Ad Hoc, Wed)

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IEEE 802.3bj Task Force Meeting – 13 November 2012:

Prepared by Kent Lusted

IEEE P802.3bj Task Force interim meeting convened at 8:39 am, Tuesday, November 13, 2012, by John D'Ambrosia, IEEE P802.3bj Chair.

Agenda & General Information

By – John D'Ambrosia

See -- http://www.ieee802.org/3/bj/public/nov12/agenda_3bj_01a_1112.pdf

- Chair reviewed the agenda.
- Chair asked if there were any reporters in the room. No one responded.
- Introductions – Everyone introduced themselves and stated their affiliation.

Motion #1: motion to approve the agenda

- Moved by: B. Kochuparambil
- Second by: Rita Horner
- Approved by voice vote without opposition

Motion 2: Motion to approve the Sept 2012 minutes

- Moved by: Mike Dudek
- Second by: Rich Mellitz
- Approved by voice vote without opposition

Chair continued with the introductory presentation

- Goals for the meeting: PAR modifications and approval, D1.2 comment resolution, Big Ticket items, revisit timeline, lay the groundwork for D1.3 and next meeting.
- Ground Rules were reviewed
- IEEE Structure, Bylaws & Rules

IEEE Patent Policy: Chair reads aloud the patent policy text on the 4 slides contained in the agenda. Chair calls for potentially essential patents. No response.

Chair read the Guidelines for IEEE-SA meetings.

Reviewed Action Items from July '12 and Sept '12 meeting. All action items reviewed and status updated.

Reviewed status of Task Force project documents.

Chair gives overview of the 802.3 Standards Process. Reviews the project objectives and adopted timeline.

Chair reviewed process for going to Working Group ballot.

9:06 a.m. Chair gives control of the Task Force meeting to Adam Healey, Chief Editor, for comment resolution.

Reviewed the procedure for recording attendance. Recent change to the tool no longer queries for affiliation at each meeting. Please make sure affiliation is correct; it is a requirement to maintain voting rights.

Presentation #1

Title: Editor's report

By – Adam Healey

See – http://www.ieee802.org/3/bj/public/nov12/healey_3bj_01_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation. There will be 3 tracks to process the number of comments to resolve this week.

Tracks 1 (EEE) and 2 (FEC) will be in Bonham E.

Track 3 (PMD) will be in Texas E.

Hugh Barass appointed Track 1 ad hoc chair to resolve EEE comments.

135 comments received are deemed non-controversial and will be considered in a bucket motion. Task force urged to review and notify editor of comment(s) that should be considered outside of the bucket motion.

9:19 a.m. Comment resolution begins.

Presentation #2:

Title – VSR Compliance Board Specification Range

By – Mike Dudek

See: http://www.ieee802.org/3/bj/public/nov12/dudek_3bj_02_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Task Force breaks at 10:27 a.m. Resume at 10:42 a.m.

Comment resolution resumes.

Presentation #3:

Title: 100 Gbps Copper Cable Return Loss

By – Mark Bugg

See: http://www.ieee802.org/3/bj/public/nov12/bugg_3bj_01_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation. **Action Item:** Mark Bugg to post S-parameters of worst case cable for use by Task Force

After lunch, the Track 1 (EEE) ad hoc will start in Bonham E at 1:30 p.m.

Reference Presentation #4:

Title - D1.2 Comments Discussion Document

By – Chris Diminico

See – http://www.ieee802.org/3/bj/public/nov12/diminico_3bj_01a_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Task Force breaks for lunch at 12:09 p.m. Resume at 1:47 p.m.

Comment resolution resumes.

Break at 3:12 p.m. Resume at 3:36 p.m.

135 comments received are deemed non-controversial and will be considered in a bucket motion. Task force urged to review and notify editor of comment(s) that should be considered outside of the bucket motion. No response.

Task Force Straw poll #1: Delete Test 1 and Test 2 values? Agree: 4 Disagree: 5. Favors keeping the values. See comment #237 in comment database for additional information.

Break for the day at 5:47 p.m., 13 November 2012.

IEEE 802.3bj Track 1 (EEE) Ad hoc Meeting – 13 November 2012:

Prepared by John D'Ambrosia

Attendees:

Hugh Barrass (chair)
John D'Ambrosia
Oren Sela
Mike Bennett
Jeff Slavick
David Ofelt
Arthur Marris
Velu Pillai
Sundar Chidambara
Andre Szczepanek

Meeting called to order at approximately 1:40pm
Comment resolution
Break at 2:50 pm
Reconvened at approximately 3:20 pm
Broke for the day around 6pm.

IEEE 802.3bj Task Force Meeting – 14 November 2012:

Prepared by Kent Lusted

Meeting called to order at 8:37 a.m., 14 November 2012

Chair review the agenda for the day. See

http://www.ieee802.org/3/bj/public/nov12/agenda_3bj_01a_1112.pdf

Patent Policy: Chair displays the patent slides. Chair calls for any potentially essential patents. Nobody responded. Chair displays Guidelines for IEEE-SA meetings. No response.

Presentation #5

Title – Project Issues

By – John D’Ambrosia

See – http://www.ieee802.org/3/bj/public/nov12/dambrosia_3bj_01_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Modified PAR with corrections will be posted for Task Force review.

8:46 a.m. Chair gives control of the Task Force meeting to Adam Healey, Chief Editor, for comment resolution.

Comment resolution continues.

Reference Presentation #6:

Title - PMD functional and electrical behavior for Energy Efficient Ethernet

By – Adam Healey, Matt Brown

See – http://www.ieee802.org/3/bj/public/nov12/healey_3bj_02a_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

9:15 a.m. Chief Editor returns meeting to John D’Ambrosia, Chair.

PAR responses and update necessary by 5pm today.

Motion #3:

Move to:

- Approve responses to comments received against P802.3bj PAR as stated in dambrosia_3bj_01_1112.pdf on slide 3
- Approve the changes to PAR as noted in P802_3bj_PAR_modification_12_1114.pdf
- Approve changes to 5 Criteria as noted on Slide 3 (Compatibility) of 5C_1112.pdf

M: K. Lusted

S: A. Healey

Technical (75%)

All in the room --- Y: 32 N: 0 A: 0

Results: PASSES!

9:30 a.m. Chair returns control of the Task Force meeting to Adam Healey, Chief Editor, for comment resolution.

Comment resolution continues.

135 comments received are deemed non-controversial and will be considered in a bucket motion. Task force urged to review and notify editor of comment(s) that should be considered outside of the bucket motion.

Track 1 ad hoc will resume at 9:40 a.m. in Bonham E.

Track 2 ad hoc will be after lunch in Bonham E.

Break at 10:11 a.m. Resume at 10:38 a.m.

Presentation #7:

Title – Open Issues with Clause 93

By – Adam Healey

See -- http://www.ieee802.org/3/bj/public/nov12/healey_3bj_03a_1112.pdf

ACTION ITEM: Adam to send updated presentation. Done

Presentation #8:

Title - PKG and Interconnect COM Impact Analysis and “What-ifs”

By – Liav Ben-Artzi

See – http://www.ieee802.org/3/bj/public/nov12/benartsi_3bj_01a_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Track 2 ad hoc will be after lunch in Bonham E.

EEE ad hoc comment resolution completed and posted to website. Task force to review.

Task Force breaks for lunch at 12:09 p.m. Resume at 1:36 p.m.

Comment resolution continues.

Task Force Straw poll #2: For contribution of receiver package insertion loss, (a) leave insertion loss in Eq 93A-6? or (b) remove IL from Eq 93A-6 and use fixed penalty? A: 3 B: 6. See comment #48 for additional details. After discussion, consensus for option B.

Update to COM will be forthcoming in next 2 weeks.

Break at 3:04 p.m. Resume at 3:22 p.m.

Comment resolution continues.

Webpage is updated with EEE ad hoc resolved comments and FEC ad hoc resolved comments. Task force urged to review and notify editor of comment(s) that should be reviewed in the main task force.

Presentation #9:

Title: 100GBASE-KP4 Training Frame Update for Draft 1.2

By – Kent Lusted

See – http://www.ieee802.org/3/bj/public/nov12/lusted_3bj_01_1112.pdf

No questions.

Presentation #10:

Title: 100GBASE-KP4 Overhead Bits Addressing comment 142

By – Zhongfeng Wang

See – http://www.ieee802.org/3/bj/public/nov12/wang_3bj_01a_1112.pdf

No questions

Task Force will start at 8 am on Thursday.

135 comments received are deemed non-controversial and will be considered in a bucket motion. Task force urged to review and notify editor of comment(s) that should be considered outside of the bucket motion.

Task force urged to review the EEE ad hoc resolved comments and FEC ad hoc resolved comments and notify editor of comment(s) that should be reviewed in the main task force.

Comment #369 will be pulled from FEC ad hoc for consideration by the Task Force on Thursday.

Break for the day at 6:35 p.m., 14 November 2012.

IEEE 802.3bj Track 1 (EEE) Ad hoc Meeting – 14 November 2012:

Prepared by John D'Ambrosia

Attendees:

Hugh Barrass (chair)
John D'Ambrosia
Oren Sela
Mike Bennett
Jeff Slavick
David Ofelt
Arthur Marris
Velu Pillai
Sundar Chidambara
Andre Szczepanek

Reconvened at approximately 9:45am
Comment Resolution
Adjourned at 10:55am

IEEE 802.3bj Track 2 (FEC) Ad hoc Meeting – 14 November 2012:

Prepared by Adam Healey

Attendees:

Adam Healey (ad hoc chair)
Oren Sela
John Nolan
John Ewen
Velu Pillai
Sundar Chidambara
David Ofelt
Jeff Slavick
Arthur Marris
Andre Szczepanek

Meeting called to order at 1:45 PM
Comment resolution

Track 2 ad hoc straw poll #1:

Make error indication mandatory?
Agree: 5
Disagree: 2

It was concluded that comment #369, and related comments, should be considered by the Task Force.

Meeting adjourned at 3:55 PM

IEEE 802.3bj Task Force Meeting – 15 November 2012:

Prepared by Kent Lusted

Meeting called to order at 8:10 a.m., 15 November 2012

Chair review the agenda for the day. See

http://www.ieee802.org/3/bj/public/nov12/agenda_3bj_01a_1112.pdf

No comments.

Patent Policy: Chair displays the patent slides and IEEE guidelines for WG meetings. Chair calls for any potentially essentially patents. Nobody responded. Chair displays Guidelines for IEEE-SA meetings. No response.

Only 1 comment will be pulled from bucket motion -- comment #307. All others will be considered in the bucket motion. No one objected.

8:15 a.m. Chair returns control of the Task Force meeting to Adam Healey, Chief Editor, for comment resolution.

Comment resolution continues.

Presentation #11

Title: Amplification on comment 277 also bearing on Comments 152 and 247

By -- Charles Moore

See -- http://www.ieee802.org/3/bj/public/nov12/moore_3bj_01a_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Presentation #12

Title: PAM4 Interference tolerance test ad hoc report

By -- Mike Dudek

See -- http://www.ieee802.org/3/bj/public/nov12/dudek_3bj_01a_1112.pdf

Discussion: Clarifying questions were discussed regarding the presentation.

Discussion of comment #369 will be discussed at 10:30am.

Break at 9:33 am. Resume at 10:36 a.m.

Comment resolution resumes.

Task Force Straw poll #3: adopt the proposed response for FEC error marking? Y: 19 N: 6
Favors the proposed response. See comment #369 in comment database for more information.

Comment resolution complete.

ACTION ITEM: Rich Mellitz to provide updated COM within 2 weeks.

Chris Diminco will continue ad hoc to harmonize COM integration in Clause 92.

Appointed ad hoc to resolve return loss in P802.3bj. Rich Mellitz and Liav Ben-Artzi to chair.

Reviewed proposed timeline on slide 5 in

http://www.ieee802.org/3/bj/public/nov12/dambrosia_3bj_01_1112.pdf

Motion #4:

Move to:

- Adopt the timeline on slide 5 of dambrosia_3bj_01_1112.pdf

M: K. Lusted

S: Brian Holden

Technical ($\geq 75\%$)

All in the room: by voice

Results: Passes by voice vote without opposition

Motion #5:

Move to:

- Adopt proposed responses to remaining “non-controversial” comments as indicated in healey_3bj_01_1112.pdf
- Generate Draft 1.3 from Draft 1.2 and closed comments
- Initiate fourth Task Force review

M: K. Lusted

S: M. Brown

Technical ($\geq 75\%$)

All in the room Y: 33, N: 0, A: 1

Results: PASSES

Chief Editor will post the schedule for draft 1.3 to 802.3bj reflector.

Reviewed future meetings.

Motion #6:

Move to adjourn

M: Jeff Slavick

S; Mike Dudek

Passes by voice vote without opposition

Meeting ends at 11:32am, 15 November 2012

July 2012 Action Items:

Volunteer	Action	Date Assigned	Status
Merrick Moeller	Provide updated CFP4 simulation results at next meeting	7/17/2012	

September 2012 Action Items:

Volunteer	Action	Date Assigned	Status
Charles Moore, Mike Dudek	Run ad hoc to provide proposal with complete characteristics and parameters in Table 94-7, of Draft 1.1 for submission against draft 1.2	25 September 2012	Ongoing
Kent Lusted, Adee Ran, Matt Brown	Run ad hoc which defines suitable pattern, methodology, and values for 100GBASE-KP4 transition time.	25 September 2012	Ongoing
Task Force Channel Submitters	Compare diff return loss of target channels against informative limit for CI 93 and CI 94.	25 September 2012	Ongoing
Chris Diminico	Run ad hoc to harmonize electrical cable and transmitter parameters for Clause 92.	26 September 2012	Ongoing
Ali Ghasi	send updated presentation ghiasi_3bj_01a_0912.pdf to Chair for posting to web.	26 September 2012	Closed, 27 September 2012
Task Force Channel Submitters	Correlate their submitted channels against informative channel models and COM results.	26 September 2012	Ongoing

November 2012 Action Items:

Volunteer	Action	Date Assigned	Status
Mark Bugg	Post S-parameters of worst case cable for use by Task Force	13 November 2012	Closed
Rich Mellitz	Provide updated COM within 2 weeks.	15 November 2012	Closed, 3 December 2012
Rich Mellitz, Liav Ben-Artzi	Run ad hoc to resolve return loss in P802.3bj	15 November 2012	Open

Attendee List:

			# attended:	56	44	41
IEEE 802.3bj 100Gb/s Cu & BP TF, Nov. 2012 Plenary			13-Nov-12	14-Nov-12	15-Nov-12	
Last Name	First Name	Affiliation	Tuesday	Wednesday	Thursday	
Anslow	Pete	Ciena Corporation				X
Balasubramanian	Vittal	Brocade		X		X
Barnett	Barry	IBM	X			
Barrass	Hugh	Cisco	X	X		
Beaudoin	Denis	Texas Instruments	X			
Ben-Artzi	Liav	Marvell	X	X		X
Bennett	Mike	LBNL	X			
Brown	Matt	Applied Micro	X	X		X
Bugg	Mark	Molex	X	X		X
Chang	Jacky	HP	X			
D'Ambrosia	John	Dell	X	X		X
DiMinico	Christopher	MC Communications/Leoni	X			X
Donahue	Curtis	UNH - IOL	X	X		X
Dudek	Mike	QLogic	X	X		X
Erba	Simone	ST Microelectronics	X	X		X
Estes	Dave	UNH - IOL	X			
Ewen	John	IBM	X	X		X
Ganga	Ilango	Intel	X	X		
Healey	Adam	LSI	X	X		X
Hidaka	Yasuo	Fujitsu Lab of America	X	X		X
Holden	Brian	Kandou Bus	X	X		X
Horner	Rita	Synopsys	X	X		X
Joo	Bheom Soon	ETRI	X	X		
Katz	Walter	Signal Integrity Software	X			
Kawatsu	Yasuaki	Hitachi-Cable	X			
Kochuparambil	Elizabeth	Cisco Systems	X	X		X
Lackner	Hans	QoSCom				X
Law	David	HP	X			
LeCheminant	Greg	Agilent Technologies	X			
Li	Mike	Altera	X			
Liu	Zhenyu	Marvell Semiconductor	X	X		X
Lusted	Kent	Intel	X	X		X
Malkiman	Yonatan	Mellanox	X	X		X
Marris	Arthur	Cadence	X	X		X
Meier	Wolfgang	Emerson Network Power EC	X	X		X
Mellitz	Richard	Intel	X	X		X
Moeller	Merrick	Amphenol	X	X		X
Moore	Charles	Avago Technologies	X	X		X
Nolan	John	Qlogic	X	X		X

			# attended:	56	44	41
IEEE 802.3bj 100Gb/s Cu & BP TF, Nov. 2012 Plenary			13-Nov-12	14-Nov-12	15-Nov-12	
Last Name	First Name	Affiliation	Tuesday	Wednesday	Thursday	
Palkert	Tom	Xilinx, Luxtera, Molex	X			
Parthasarathy	Vasudevan	Broadcom	X	X	X	
Patel	Pravin	IBM	X	X	X	
Pillar	Velu	Broadcom	X	X		
Rabinovich	Rick	Alcatel-Lucent	X	X	X	
Searles	Shawn	Advanced Micro Devices	X	X		
Sela	Oren	Mellanox	X	X	X	
Slavick	Jeff	Avago Technologies	X	X	X	
Sommers	Scott	Molex	X	X	X	
St. Peter	Matthew	Radisys	X			
Svendsen	Justin	Carlisle	X	X	X	
Tracy	Nathan	Tyco Electronics	X	X	X	
Trowbridge	Steve	Alcatel-Lucent			X	
Vareljian	Albert	Independent	X	X	X	
Wang	Zhongfeng	Broadcom	X	X	X	
Walker	Clinton	Intel	X	X	X	
Zambell	Andrew	FCI	X	X	X	
Jafarian	Amin	Qualcomm	X			
Chidambara	Sundar	Broadcom	X	X		
Robertson	Max	Texas Instruments	X	X		
Keshavan	Kumar	Cadence	X	X	X	
Pilip	Markus	EZChip		X		
Wu	Peter	Marvell			X	