Unapproved Minutes IEEE P802.3ba Task Force January 23-25, 2008 Interim Meeting Portland, Oregon

# Prepared by: Trey Malpass

Meeting convened at 9:00 AM, Wednesday, January 23, 2008.

Agenda & General Information

By – John D'Ambrosia See – agenda\_01\_0108.pdf

- Introductions Everyone introduced themselves
- Appointed Secretary Trey Malpass volunteered as Secretary
- Bob Grow, 802.3 WG Chair, appointed John D'Ambrosia as Task Force Chair, and asked for confirmation from the Task Force.
  - o There was no discussion from the group
  - Appointment approved by voice vote without objection
- Ilango Ganga (Intel) made some comments about meeting registration procedures and lunch arrangements
- Motion to approve the agenda-
  - Moved by David Law, 2<sup>nd</sup> by Steve Trowbridge
  - Approved by voice vote without objection
- Motion to approve the November, Atlanta Plenary meeting minutes
  - o Moved by Larry Green, 2<sup>nd</sup> by Frank Chang
  - Approved by voice vote without objection
- Chair reviewed the Task Force decorum and rules and asked if members of the press were present; none noted.
- Chair reviewed the Task Force organization
- Goals for meeting
  - Project organization
  - Progress towards generating D1.0
    - Hear Proposals
    - Hear Technical Presentations
    - Identify "big ticket" items
  - Review liaison from ISO / IEC JTC 1/SC25/WG3
  - Lay groundwork for the next meeting
- Ground Rules reviewed by Chair
- IEEE Structure, Bylaws & Rules reviewed by Chair
- IEEE Patent policy
  - Chair showed the five slides to the body, reading slides 1 and 5 aloud
  - The Chair advised the Task Force that:

- The IEEE's patent policy is consistent with the ANSI patent policy and is described in Clause 6 of the IEEE-SA Standards Board Bylaws;
- Early identification of patent claims which may be essential for the use of standards under development is encouraged;
- There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- The chair provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for the use of that standard. No one came forward.
- The Chair reviewed rules regarding voting privileges; 15 first-time IEEE meeting attendees were noted.
- Chair reminded the Task Force to make sure they declared their affiliation
- Task Force function and IEEE Standards Process Flow
  - o Function of the Task Force and the completed steps were reviewed
- Reviewed Approved Project Documents and Objectives from the Study Group phase
- Schedule of presentations was reviewed; Chris Cole has requested time for an additional presentation; no objection from the group was noted.
- The Chair will present moorwood\_01\_0108.pdf on behalf of the author.

Title –	Reach Ad Hoc Update
By –	Andy Moorwood, Extreme Networks
See –	moorwood_01_0108.pdf

## Presentation #2

Title – Liaison report from ISO/IEC JTC 1/SC 25/WG 3 to IEEE 802.3

By – Alan Flatman, LAN Technologies

See – 3n856A.pdf

Discussion - The Chair appointed Peter Pepeljugoski to lead an ad hoc group to discuss this topic and draft a proposed response for an informal communication.

Break at 10:08 AM Reconvened at 10:46 AM

## Presentation #3

Title –	The IEEE P802.3ba Task Force
By –	John D'Ambrosia, Force10 Networks
See –	dambrosia_01_0108.pdf

## Presentation #4

Title –	OM4 multimode fiber standardization
By –	Gerard Kuyt, Draka Comteq
See –	kuyt_01_0108.pdf

Title –	Positioning 40 and 100 GbE in data center inter-switch link applications and
	40GbE PMD recommendations
By –	Alessandro Barbieri, Cisco
See –	barbieri_01_0108.pdf

Alessandro has updated his presentation and will provide the new file for uploading to the webpage.

The Chair took a poll to see how many people may be interested in an ad hoc meeting to discuss the proposed objectives from this presentation; there were 51 people indicating interest. The ad hoc will need to evaluate if any changes to the 5 Criteria would be necessary if the proposed objectives were adopted.

Break for lunch at 12:30 PM Reconvened at 1:30 PM

Presentation #6

Title –	Lane Bonding Considerations
By –	Larry Green, Ixia
See –	green_01_0108.pdf

### Presentation #7

Title –	Aggregation at the Physical Layer
By –	Howard Frazier, Broadcom
See –	frazier_01_0108.pdf

Break at 2:45 PM Reconvened at 3:05 PM

### Presentation #8

Title –	PBL Solution for HSE
By –	Trey Malpass, Huawei
See –	malpass_01_0108.pdf

## Presentation #9

Title -100GE and 40GE PCS and MLD ProposalBy -Mark Gustlin, CiscoSee -gustlin\_01\_0108.pdf

### Presentation #10

Title –	MLD (CTBI) Updates - MTTFPA
By –	Mark Gustlin, Cisco
See –	gustlin_02_0108.pdf

### Presentation #11

Title –	Wander in MLD (CTBI) encoded links
By –	Pete Anslow, Nortel
See –	anslow_01_0108.pdf

Title –	40 GbE and 100 GbE PCS Considerations: Key questions to be answered
	concerning OTN mapping
By –	Steve Trowbridge, Alcatel-Lucent
See –	trowbridge_01_0108.pdf

Presentation #13

Title –	OTN Support for High Speed Ethernet
By –	Trey Malpass Huawei
See –	malpass_02_0108.pdf

Meeting breaks for the day at approximately 6:40 PM

Meeting reconvenes at 9:00 AM, Thursday, January 24, 2008.

The Chair reminded the group where to find the patent policy slides on the IEEE website. The chair asked the group if there were any patent or IP disclosures; none were noted.

Presentation #14

Title –	40/100G Architecture and Interfaces Proposal
By –	Ilango Ganga, Intel
See –	ganga_01_0108.pdf

John D'Ambrosia turned over Chair responsibilities to Ilango Ganga during the next presentation.

Presentation #15

Title –Consideration for Electrical InterfacesBy –Joel Goergen, Force10 Networks (presented by John D'Ambrosia)See –goergen\_01\_0108.pdf

John D'Ambrosia re-assumes Chair responsibilities.

Break at 10:00 AM Reconvened at 10:15 AM

Presentation #16

Title – A Starting Point for a Common Electrical Interface for Nx10 Higher-Speed Ethernet

- By Gourgen Oganessyan, Quellan
- See oganessyan\_01\_0108.pdf

Chris DiMinico will lead an ad hoc group to define test points for electrical and optical interfaces and report back to the group.

Title –	Common Electrical I/F Proposal
By –	Tom Palkert, Luxtera
See –	palkert_01_0108.pdf

# Presentation #18

 Title –
 Architectural Implications of Retimed, Limiting, and Linear Interface for nx10G

 By –
 Ali Ghiasi, Broadcom

See – ghiasi\_01\_0108.pdf

Ali will make some corrections to the presentation and send the new file for upload.

## Presentation #19

Title –Overcoming Jitter Budget Issue with Use of "SLI" for nx10G InterfaceBy –Ali Ghiasi, BroadcomSee –ghiasi\_02\_0108.pdf

Break for lunch at 12:00 Noon Reconvened at 1:00 PM

### Presentation #20

Title –	Retimed Interface Considerations for IEEE P802.3ba			
By –	Ryan Latchman, Gennum			
See –	latchman_01_0108.pdf			
Ryan will make some corrections to the presentation and send the new file for upload.				

Presentation #21

Title –	Feasibility of 40/100G Heterogeneous System based on Channel Data
By –	Hiroshi Takatori, PhyCore Technology
See –	takatori_01_0108.pdf

## Presentation #22

Title –	Multi-Lane PMD Reliability and Partial Fault Protection (PFP
By –	Wenbin Jiang, Huawei
See –	jiang_01_0108.pdf

Break at 3:25 PM Reconvened at 3:38 PM

Presentation #23

Title –	User Perspective for Requirements for a PMD to Achieve 100m over OM3 Fiber
By –	Petar Pepeljugoski, IBM
See –	pepeljugoski_01_0108.pdf

Petar will make some corrections to slide 6 of the presentation if necessary and send the new file for upload. Petar will also provide a reference to his paper.

Title –100GE 10km SMF Technology AlternativesBy –Chris Cole, Finisar

See – cole\_01\_0108.pdf

### Presentation #25

Title –	SMF PMD Discussion
By –	Matt Traverso, Opnext
See –	traverso_01_0108.pdf

Polls regarding future meetings were conducted at this point.

## Polls:

- New Attendees
  - How many new attendees were in the meeting? 16
  - How many of the new attendees plan to continue attending? 14
  - o Do any of the new attendees plan to attend other 802.3 TF meetings? 0
- March meeting
  - How many people plan to attend the March Plenary in Orlando? 83
  - How many may attend? 4
  - How many people plan to attend the FrameMaker tutorial session? 9
- May meeting
  - How many people plan to attend the May Interim in Munich (Monday, May 12th through Friday, May 16th, 2008)? - 59
  - How many may attend? 24
  - How many will not attend? 4
- September meeting
  - How many people plan to attend the September Interim in ChengDu, China (Monday, September 15th through Friday, September 19th, 2008)? - 38
  - How many may attend? 35
  - How many will not attend? 7

Meeting breaks for the day at 5:54 PM

Meeting reconvenes at 8:30 AM, Friday, January 25, 2008.

The Chair made some opening comments regarding the plan for the day and reminded the group where to find the patent policy slides on the IEEE website. The group was asked again if there are any patent or IP disclosures; none were noted.

Presentation #26

Title –	Power budget estimation using DML for 10km & 4km reach in 100G SMF
	transmission
By –	Hideki Isono, Fujitsu
See –	isono_01_0108.pdf

Title –4x25G SMF Optics: Channel Spacing ConsiderationsBy –John Johnson, CyOpticsSee –johnson\_01\_0108.pdf

John will make some corrections to the presentation and send the new file for upload.

Presentation #28

Title –100GE 40km SMF Technology LimitationBy –Chris Cole, FinisarSee –cole 02 0108.pdf

Break at 10:15 AM Reconvened at 10:30 AM

Presentation #29

Title –	IEEE802.3ap Jitter Specification Is Sufficient And Inclusive Of Package Crosstalk
	for IEEE802.3ba Systems
By –	Rich Mellitz, Intel
See –	mellitz_01_0108.pdf

# Presentation #30

Title – 802.3ba Cu specifications

By – Chris DiMinico, MC Communications

See – diminico\_01\_0108.pdf

Chris will make some corrections to the presentation and send the new file for upload. Chris will also provide some additional 10 meter QSFP cable data for the task force to use.

Presentation #31

Title –Data Centre Link SurveyBy –Alan Flatman, LAN TechnologiesSee –flatman\_01\_0108.pdf

Break for lunch at 11:55 AM Reconvened at 12:45 PM

Presentation #32

Title –High Speed Ethernet Link LossBy –Scott Kipp, BrocadeSee –kipp\_01\_0108.pdf

The Chair reviewed the issues that need to be addressed going forward (3 slides from agenda\_01\_0108.pdf). Collaboration was encouraged using the email reflector between meetings.

# **Straw Polls:**

Straw Poll 1: (Mike Dudek) The architecture should be aimed at lane counts of 10, 4, 2, and 1 for 100G and 4, 2, and 1 for 40G.

Yes – 48; No – 7; Abstain – 23

Break at 2:35 PM Reconvened at 2:52 PM

Straw Poll 2: (Wenbin Jiang) Should the Task Force consider implementations for partial fault protection? Yes - 8: No - 29: Abstain - 36

Straw Poll 3: (Ali Ghiasi) A. Should the Task Force define an electrical PCS-to-PMA interface? Yes -1; No -2; Undecided -44; Abstain -20B. Should the Task Force define an electrical PMA-to-PMD interface? Yes -7; No -11; Undecided -34; Abstain -16

During discussion of Straw Poll 3.B, the Chair turned over Chair responsibilities to David Law. After Straw Poll 3.B completed, John D'Ambrosia re-assumed chair responsibilities.

## Future Meetings:

- March 2008 Plenary
  - Tuesday Thursday, March 18 20
  - Caribe Royale Orlando All Suites Resort and Convention Center
  - o Orlando, FL, USA
- May 2008 Interim •
  - Hosted by Linear Technology
  - Proposed Week of May 12 16
  - o Munich, Germany
- July 2008 Plenary
  - July 13 18
  - Hyatt Regency Denver at the Colorado Convention Center
  - o Denver, CO, USA
- Sept 2008 Interim
  - Hosted by Huawei
  - o Week of Sept 15
  - ChengDu, China
- Nov 2008 Plenary
  - Nov 9 14
  - Hyatt Regency Dallas at Reunion
  - o Dallas, Tx, USA

Alessandro Barbieri reported the results of an ad hoc held earlier in the week. The presentation will be uploaded as barbieri\_02\_0108.pdf.

Petar Pepeljugoski reported the results of an ad hoc held to discuss a response to the ISO liaison. The presentation will be uploaded as pepeljugoski\_02\_0108.pdf.

<u>Motion 1:</u> Move that 802.3ba approve the text in pepeljugoski\_02\_0108 with editorial license granted to the Chair (or his appointed agent) as an informal communication by the Chair to ISO/IEC JTC 1/SC 25/WG 3

Moved by – Petar Pepeljugoski Second by – Scott Kipp

Technical ( $\geq$  75%) Yes – 35 No – 3 Abstain –14 Motion passes.

Motion to adjourn – moved by Larry Green; 2<sup>nd</sup> by Mike Dudek. Approved by acclamation. Meeting adjourns at 4:47 PM on Friday, January 25, 2008.

# Attendance:

			Interim		
				Portland	
		Attendance Sheet		1/24/2008	
Last Name	First Name	Affiliation	Wed	Thu	Fri
Abbas	Ghani	Ericsson, UK	Х	Х	Х
Abbott	John	Corning	Х	Х	Х
Abbott	Justin	Gennum	Х	Х	Х
Akasaka	Youichi	Fujitsu Labs	Х	Х	Х
Alping	Arne	Ericsson AB	Х	Х	Х
Anslow	Pete	Nortel	Х	Х	Х
Armistead	Ashby	Google	Х	Х	Х
Badihi	Avner	Xloom Communications	Х		Х
Baldwin	Thananya	Ixia	Х	Х	Х
Barbieri	Alessandro	Cisco	Х		Х
Barrass	Hugh	Cisco		Х	Х
Belhadj	Med	Cortina Systems		Х	Х
Booth	Brad	AMCC			Х
Braun	Ralf-Peter	Deutsche Telekom, T-Systems	Х	Х	Х
Cady	Ed	MERITEC	Х	Х	
Carroll	Martin	Verizon	X	X	Х
Chang	Frank	Vitesse	X	X	X
Cole	Chris	Finisar	X	X	X
Coleman	Doug	Corning	X	X	
Congdon	Herb	Tyco Electronics	X	X	Х
Dada	Faisal	JDSU	X	X	X
D'Ambrosia	John	Force 10 Networks	X	X	X
Dawe	Piers	Avago Technologies	X	X	X
Diab	Wael	Broadcom	X	~	Λ
DiMinico	Chris	MC Communications/LEONI	X	Х	Х
Dove	Dan	DoveNetworking - Procurve by HP		^	X
Dudek	Mike	JDSU	Х	v	X
				X	
Ellett	James	Cisco Systems	X	X	X
Ewen	John	IBM	X	X	X
Fiere	Julien	Merge Optics	X	X	X
Fischer	Thomas	Nokia Siemens Networks	X	X	X
Flatman	Alan	LAN Technologies		X	X
Ganga	llango		X	X	Х
Ghiasi	Ali	Broadcom		Х	
Giannakopoulos	Dimitris	AMCC	Х	Х	Х
Green	Larry	Ixia	Х		Х
Grow	Bob	Intel	Х	Х	Х
Gustlin	Mark	Cisco	Х	Х	Х
Hays	Robert	Intel		Х	
Healey	Adam	LSI		Х	
Helster	David	Tyco Electronics	Х	Х	Х
Hornbuckle	Craig	Sierra Monolithics	Х	Х	
Horner	Rita	Avago Technologies	Х	Х	Х

Hughes	Robert	Phyworks		Х	
shida	Osamu	NTT	Х	Х	Х
sono	Hideki	Fujitsu Ltd.	Х	Х	Х
laeger	John	Infinera		Х	
Jewell	Jack	JDSU	Х	Х	Х
Jiang	Wenbin	Consulting for Huawei	Х	Х	Х
Johnson	John	CyOptics	Х	Х	Х
Kang	Tae-kyu	ETRI	Х	Х	Х
Kawatsu	Yasuaki	Hitachi-Cable	Х	Х	Х
Keck	Steven	Stratalight	Х	Х	
Kengo	Matsumoto	Sumitomo Electric Lab			Х
King	Jonathan	Finisar Corp.	Х	Х	
Kipp	Scott	Brocade	Х		Х
Kobayashi	Shoukei	NTT	Х	Х	Х
Kojima	Keisuke	Mitsubishi Electric Res. Lab	Х	Х	
Kolesar	Paul	CommScope	Х	Х	Х
Krishnamurthy	Subi	Force 10 Networks	Х		
Kuyt	Gerard	Draka Comteq	Х	Х	
_atchman	Ryan	Gennum	Х		Х
_i	Mike	Altera	Х	Х	Х
_i	Zeng	Huawei	Х	Х	Х
_ingle, Jr.	Robert	OFS	Х	Х	Х
_ynch	Jeffrey	IBM		Х	
Maki	Jeffery	Juniper Networks	Х	Х	Х
Valpass	Trey	Malpass Technology - Huawei	Х	Х	Х
Varcoccia	Roberto	Stratalight	X	X	
Varti	Frank	Leviton	X	X	Х
Vartin	Arlon	Kotura	X	X	X
Vatsumoto	Kengo	Sumitomo Electric	X	X	
VcClay	Phil	Zarlink Semiconductor	X	X	Х
McDonough	John	NEC America	X	X	X
VicSorley	Greg	Amphenol	X	X	X
Vellitz	Richard	Intel	X	X	X
Viao	Tremont	Analog Devices Inc.	X	X	X
Vori	Kazuyuki	Fujitsu Labs	X	X	X
Nabili	Babak	Inphi	X	X	X
Vakamoto	Edward	Spirent Communications	X	X	X
Veer	Jay	Molex	X	X	
Nicholl	Gary	Cisco	X		Х
Noseworthy	Bob	UNH - IOL		Х	~
Nowell	Mark	Cisco	Х		х
Dfelt	David	Juniper Networks	X	Х	X
Oganessyan	Gourgen	Quellan	X	X	
Dulundsen	George	OFS	X	X	Х
Paik	Junghoon	ETRI	Х	X	X
			^		
Palkert	Tom	Xilinx, Luxtera	v	X	X
Peeters Weem	Jan Dotor	Aprius IBM	X X	X	X
Pepeljugoski	Petar Gerald	Ixia	X	X X	X X

Petrilla	John	Avago Technologies	X	х	Х
Rabinovich	Rick	T-Packets	Х		Х
Roth	Moran	Corringent Systems	Х	Х	Х
Roth	Richard	Amphenol TCS	Х		Х
Sambasivan	Sam	AT&T	Х	Х	Х
Schrans	Thomas	Santur	Х	Х	
Schube	Scott	Intel	Х		
Seely	Ted	Sprint	Х	Х	
Serbay	Murat	Merge Optics	Х	Х	Х
Shafai	Farhard	Sarance		Х	Х
Shigematsu	Masayuki	Innovation Core SEI, Inc.	Х	Х	Х
Simsarian	Jesse	Alcatel-Lucent	Х	Х	Х
Skubic	Chris	Intel		Х	
Song	Steve	Excelight	Х	Х	Х
Southworth	Robert	Fulcrum Microsystems	Х	Х	Х
Sparrowhawk	Bryan	Leviton	Х	Х	Х
Steerman	Henk	AMS-1X	Х	Х	Х
Storaasli	Olaf	Draka Comteg		Х	Х
Subramanian	Krishnamurthy	Force 10 Networks	Х		
Swanson	Steve	Corning	Х	Х	Х
Szczepanek	Andre	Texas Instruments	Х	Х	Х
Takahashi	Hidenori	KDDI R&D Laboratories Inc.	Х	Х	Х
Takatori	Hinoshi	PhyCore Tech	Х		Х
Tanaka	Bert	Woven Systems	Х		
Tavacoli	Jim	Santur	Х	Х	Х
Thiagarajan	Sashi	Ciena			Х
Thompson	Geoff	Nortel			Х
Tohmon	Genji	Intel	Х	Х	Х
Traverso	Matt	Opnext	Х	Х	
Trowbridge	Steve	Alcatel-Lucent	Х	Х	Х
Tsumura	Eddie	Excelight	Х	Х	Х
Turner	Brad	Juniper	Х	Х	Х
Urricariet	Christian	Finisar		Х	Х
Vaden	Sterling	SMP		Х	
Van Deusen	Herb	Gore Associates	Х	Х	
Vanderlaan	Paul	Nexans	Х	Х	Х
Vetteth	Anoop	Cisco	Х		
Wang	Zhongfeng	Broadcom	Х	Х	Х
Way	Winston	OPVISTA	Х	Х	
Wertz	Jason	Sandia National Laboratories	Х	Х	Х
White	Martin	Marvell Semiconductor	Х	Х	Х
Wise	Jeffrey	Emerson	Х	Х	Х
Younce	Rick	Tellabs	X	X	X
Young	George	AT&T	X	X	X
Zivny	Pavel	Tektronix	X	X	X