

## IEEE 802.3bt May 2014 Interim Meeting Minutes

Secretary: Fred Schindler

### **Wednesday May 14**

Team Convened at 9:00 AM

Chair went through introductions

#### **Motion 1:** Approve Agenda

Mover: Matthias Wendt, Second: Yair

Approve by voice

Passes

#### **Motion 2:** Approve Minutes from March 2014, IEEE 802.3BT Task Force Meeting

Mover: Fred Schindler, Second: Yair Darshan

Approved by voice

Passes

#### **Motion 3:** Approve amended minutes, which removed email addresses, for the previous for IEEE 802.3BT (related) meetings

Mover: Yair Darshan, Second: David Tremblay.

Approved by voice

Passes

### Table Items

Call for anyone recording the meeting. Chair reviewed goals, big-ticket (architecture, mutual ID, 10 GE)

Reflector and web information was presented.

Chair reviewed ground rules and guidelines, attendance

Instructions for Workgroup Chair

Chair read patent policy, Call for patents

Overview IEEE 802.3 Standard Process

Liaisons letters have no replies to date.

Objectives Reviewed

Chair indicates there were 15 submissions, 1 late; 2 ad hoc reports

Presentation: naming conventions

Adhoc Report 1:

Topic: Channel Pair To Pair Resistance Imbalance (End to End System Imbalance)

Presenter: Yair Darshan

**Motion 4:** To extend the Channel Pair To Pair Resistance Imbalance ad hoc.

Mover: Yair Darshan, Seconder: Jeff Heath

Technical, Y 36, N 0, A 2

Passes

Comment: Chad Jones; Indicates there will be a Thursday afternoon cable ad hoc meeting.

Ad hoc Report 2

Topic: Cabling ad hoc report

Presenter: Wayne Larsen

**Motion 5:** To extend the Cable ad hoc

Mover Wayne Larsen, Seconder: Jeff Heath

Y 36, N 0, A 1

Passes

Comment: Wayne Larsen, Next Cable ad hoc meeting is planned for June 26, 2014.

Presentation 1:

Topic: MPS Baseline Proposal v250

Presenter: Lennart Yseboodt & David Abramson

Break Start: 10:56 AM

Back in Session: 11:10 AM

**Straw Poll:** I support slides 4 to 6, amended to use 3 significant digits, as baseline proposal to allow reduced MPS pulse width. The definition of the test circuit and IHOLD are TBD.

Y 28 N 0 A 7

Presentation 2

Topic: 4-Pair PoE Current Unbalance Update

Presenter: Christian Beia

Comment: Christian Beia, that he wants more data for diode voltage drop vs current.

Recess for Lunch: 11:43 AM

Back in Session: 1:15 PM

Presentation 3

Topic: Power Over 10GBase-T Ethernet End Span and Midspan

Presenter: Yair Darshan

#### Presentation 4

Topic: IEEE802.3bt 4 Pair PoE Cost Comparison Redux

Presenter: Heath Stewart

#### Presentation 5

Topic: IEEE P802.3bt Application Considerations and Capabilities

Presenter: Chris DiMinico

#### Presentation 6

Topic: IEEE802.3bt Single Power PSE Rev 1.4

Presenter: Jeff Heath

Break: 15:30

Return: 15:45

#### Presentation 7

Topic: PD Power Interface Identification

Presenter: Fred Schindler

#### Presentation 8

Topic: 4P PoE with Typical Y cable Construction Use Case Analysis

Presenter: Yair Darshan

Presentation 9

Topic: PD Power Interface Identification—Part-2

Presenter: Fred Schindler

Recess for the day: 5:30 PM

**Thursday May 15, 2015**

Convened at 9:00 AM

Presentation 10

Topic: Duty-Cycle Modulation on the 3rd Event of Classification

Presenter: Gaoling Zou

Presentation 11

Topic: Type3 and Type4 voltage polarity

Presenter: Christian Beia

Recess: to allow 'Contentious Topic Adhoc' meeting to use meeting space: 10:18 AM

Back in Session: 1:30 PM

Presentation 12

Topic: Base Line Text for IEEE 802.3bt

Presenter: David Abramson

Comment: David Abramson, credits Koussalya Balasubramanian as main author.

### Presentation 13

Topic: 4PPoE Architecture Proposal 3.0

Presenter: Dave Dwelley

### Presentation 14

Title: Baseline proposed text (1)

Presenter: Christian Beia

Break 2:52 PM

Resume 3:10 PM

Chair, Chad Jones has David Dwelley, become acting Chair.

### Presentation 15

Title: Baseline Proposal

Presenter: Chad Jones presenting for Bill Delveaux who could not attend

Chair, Dave Dwelley, restores Chad Jones, as Chair.

Recess for the day to allow Cable Pair to Pair Resistance Unbalance Adhoc meeting to use meeting space: 15:32

## **Friday, May 16, 2014**

In Session: 9:00 AM

Ad hoc Report 3:

Title: Controversial ad hoc Report

Presenter: David Abramson

Adhoc Report 4:

Title: Cable Imbalance ad hoc report

Presenter: Yair Darshan

Minority Adhoc Report 1:

Title: Minority Report, Cable Imbalance ad hoc report

Presenter: Jeff Heath

Break: 10:05 AM

In session: 10:25 AM

Motions (these motions and straw polls as presented in the meeting room can be found at:  
[http://www.ieee802.org/3/bt/public/may14/motions\\_0514.pdf](http://www.ieee802.org/3/bt/public/may14/motions_0514.pdf))

### **Motion 6:**

Move that 802.3bt specify the Channel Pair to Pair resistance unbalance for operating 4P systems

Mover: Yair Darshan, Second: Christian Beia

Y 34 N 0 A 8

Passes

### **Motion 7:**

[original text not here, final moved text after friendly amendments below]

Mover: Yair Darshan, Second: Christian Beia

Friendly Amendment: Wayne Larsen, Replace "Type 3 and Type 3" as "4 Pair Operation."

Friendly Amendment: Jeff Heath, “4P pair” with “4 pair.”

**Motion** to add the following text to clause 33 after 33.1.4.2.

33.1.4.3 4 Pair Operation Channel Requirement for Pair to Pair Resistance unbalance

4 pair operation requires the specification of resistance unbalance between each two pairs of the channel, not greater than 200 milliOhms or 6%(TBD) whichever is greater. Resistance unbalance between the channel pairs is a measure of the difference of resistance of the common mode pairs of conductors used for power delivery. Channel pair to pair resistance unbalance is defined by equation 33-1.1:

$$\left\{ \frac{(R_{ch\_max} - R_{ch\_min})}{(R_{ch\_max} + R_{ch\_min})} \times 100 \right\} \% \quad 33-1.1$$

Where:

Rch\_max is the sum of channel pair elements with highest common mode resistance.

Rch\_min is the sum of channel pair elements with lowest common mode resistance

Common mode resistance is the resistance of the two wires in a pair (including connectors), connected in parallel.

Mover: Yair Darshan, Seconder: Christian Beia

Y 33 N 1 A 7

Passes

### **Motion 8:**

Move to adopt slides 4 to 6 in yseboodt\_02\_0514.pdf as baseline text IHOLD , Annex 33B and CPORT for Type 3 (in the note in 33.3.8) are TBD.

Mover: Lennart Yseboodt, Seconder: Faisal Ahmad

Friendly Amendment: Yair Darshan, to break this into a motion per slide, and to place TBD by new parameters.

Comment: Lennart Yseboodt, that he does not accept this amendment.

Y 19 N 0 A 15



Passes

**Straw Poll 1:**

IEEE 802.3bt should provide a means to identify a PD capable of receiving power simultaneously on both Alternatives.

Y 23 N 0 A 8

**Straw Poll 2:**

I support a LLDP extension that provides a 4-pair power identification (4P-ID).

Do you agree with the above statement for .3bt?

Y 19 N 2 A 11

**Straw Poll 3:**

I support a modification of clause 33.2.3 in order to define a fixed voltage polarity at the PSE PI for PSEs capable of sourcing more than 30W

Y 18 N 1 A 13

**Straw Poll 4:**

I support a modification of clause 33.2.3 in order to define a fixed voltage polarity at the PSE PI for PSEs capable of sourcing more than 60W

Y 14 N 0 A 19

**Straw Poll 5:**

I support a modification of clause 33.3.1 in order to define a fixed voltage polarity at the PD PI for PDs capable of drawing more than 51W

Y 1 N 14 A 14

**Motion 9:**

Move to accept text in slide 7 of Abramson\_01a\_0514.pdf as IEEE802.3bt text for section 33.1.1, excluding the note regarding Type 4

Mover: David Abramson, Second: Yair Darshan

Y 30 N 0 A 7

Passes

**Motion 10:**

Move to accept text in slide 8 of Abramson\_01a\_0514.pdf IEEE802.3bt as text for section 33.1.4, removing “and Type 4” from the last sentence

Mover: David Abramson, Second: Matthias Wendt

Y 28 N 0 A 5

Passes

**Motion 11:**

Move to accept text in slide 9 of Abramson\_01a\_0514.pdf as IEEE802.3bt text for section 33.1.4.1, excluding the note regarding Type 4

Mover: David Abramson, Second:

Friendly Amendment: Wayne Larsen, 33.1.4.1 is the correct value for the slide.

Comment: Mover and Second accept.

Y 31 N 0 A 5

Passes

**Motion 12:**

Motion to accept text from slide 11 of Abramson\_01a\_0514.pdf as IEEE802.3bt text for Section 33.2.3

Mover David Abramson, Second: Yair Darshan

Y 26 N 0 A 5

Passes

### **Motion 13:**

Motion to accept text from slide 12 of Abramson\_01a\_0514.pdf as IEEE802.3bt text for Section 33.3.1

Mover David Abramson, Second: Yair Darshan

Y29 N 0 A 4

Passes

### **Straw Poll 6:**

Add to 33.2.5:

A PSE capable of powering both alternatives shall only power both Alternatives simultaneously for PDs identifying themselves of being capable of accepting power on both Alternatives simultaneously.

Do you agree with the above statement for .3bt?

Comment: Heath Stewart, amend to include, ... identifying themselves of ...

Y 6 N 14 A 11

### **Straw Poll 7:**

The task force should form an adhoc to attempt to find a L1 method or examining existing Clause 33 PD and PSE specifications for legacy Type1 and Type2 PDs to enable 4P power.

Presenter: Jeff Heath

Y 19 N 3 A 9

Comment: The Chair would like to form an adhoc to support the above presentations.

Comment: Dave Tremblay volunteers to chair the adhoc

Comment: Chair requests the people interested in the above adhoc send email to him.

**Straw Poll 8:**

The task force should form an adhoc to collect use cases for P802.3bt.

Y 20 N 0 A 11

Comment: Chair charts Jeff Heath to run this adhoc.

Comment: Chair requests the people interested in the above addhoc send email to him.

Comment: The Chair will check with David Law

**Motion:** To Adjourn.

Mover: Jeff Heath

Accepted by voice.

Pass

End: 12:30 PM

10F3

4PPoE Task Force Attendance Date:

May Interim

Name	Employer	Affiliation	Email	5/14	5/15	5/16
Richard Mer	CommScope	CommScope		✓	✓	
ISMAIL JORIO	BROADCOM	BROADCOM		✓	✓	
SESHA PANGULURI	BROADCOM	BROADCOM		✓	✓	✓
JOHN HESS	BEL FUSE	BEL FUSE		✓	✓	
Victor Rentania	Bel Fuse	Bel Fuse		✓	✓	✓
Phillip Brownlee	COLCRAFT	COLCRAFT		✓	✓	✓
Valerie Maguire	Siemon	Siemon		✓	✓	✓
STERLING VADEN	VADEN ENTERPRISES V E			net ✓	SV	SV
Paulina (Polly) Rimbohm	MICROSEMI	MICROSEMI		✓	✓	✓
SHAHAR FELDMAN	MICROSEMI	MICROSEMI		✓	✓	✓
Bob Wagner	Panduit	Panduit		✓	✓	
Richard Frosch	PHitong	PHitong		✓	✓	✓
FRED DAWSON	DuPont	DuPont		✓	✓	✓
Yajir Darshan	MSCC	MSCC		✓	✓	
George Zimmerman	CME Consulting	CommScope + Agvanta		✓	✓	
Fred Schindler	Seen Simply	Seen Simply		✓	✓	✓
Antonio Garza	Cisco	Cisco		✓	AG	AG
Matthias Weucht	Philips	Philips		✓	✓	✓
Jeff Heath	LINEAR	LINEAR		✓	✓	✓
DAVE DUBUEY	LTC	LTC		X	DND	

Name	Employer	Affiliation	Email	5/14	5/15	5/16
Chad Jones	CISCO	CISCO		✓	✓	✓
David Tremblay	HP	HP		✓	✓	✓
Alan Flatman	LAD TECHNOLOGIES	LAD TECHNOLOGIES		✓	✓	
Christian Beio	STMicroelectronics	STMicroelectronics		✓	✓	✓
LENNART YSKIBOOT	PHILIPS	PHILIPS		✓	✓	✓
PETER JOHNSON	SIFOS	SIFOS		✓	✓	✓
FAISAL AHMAD	AKROS SILICON	AKROS SILICON		✓	✓	✓
GAOLING ZOU	MAXIM	MAXIM		✓	✓	✓
JEAN PICARD	TI	TI		✓	✓	✓
Ludwig Winkel	Siemens	Siemens		✓		✓
Paul Vonderlaan	Berk-Tek	Berk-Tek		✓	✓	✓
Stephan Steinke	Molex	Molex		✓	✓	✓
Pat Tunn	MOLEX	MOLEX		✓	✓	✓
PAUL KISH	BELDEN	BELDEN		✓		
WAYNE LARSEN	COMMScope	COMMScope		✓	✓	✓
JAMES(JIANGANG) LIU	Fairchild	Fairchild		✓	✓	✓
Miklos Lukacs	Silicon Labs	Silicon Labs		✓	✓	✓
David Abramson	TI	TI		✓	✓	✓
Peter Scruton	UNH-IOL	UNH-IOL		✓	✓	
James Malkemus	General Cable	General Cable		✓	✓	

30F3

4PPoE Task Force Attendance Date: May Interim

Name	Employer	Affiliation	Email	5/14	5/15	5/16
Geoff Thompson	GRACIS	Bosch		GG		
DAVE FLESS	Self	CORD DATA		GG		
MARTIN ROSSBACH	NEXTANS			GG		
THUYEN DINH	PULSE ELE	PULSE ELECTRONICS		GG		
Yan ZHUANG	Huawei	Huawei		GG		
DAVID LAW	HP	HP		GG		
Andy Gardner	Linear Tech	Linear Tech		GG		
G. MABUD CHUDHURY	COMMSCOPE	COMMSCOPE		GG		
STEVE CARLSON	HSD	MARVELL BROADCOM HUAWEI		GG		
Heath Stewart	LINEAR	LINEAR		GG		
<del>Bob Wagner</del>	<del>Panduit</del>	<del>Panduit</del>		GG		
<del>JEAN-PIERRE</del>	<del>TI</del>	<del>TI</del>		GG		
Xin Chang	Huawei	H/W.		GG		
Mike Klempa	VNH-IOL	VNH-IOL		GG		
Darshan Yair	MSCC	MSCC		GG		
PAVEL ZIVNY	TEKTRONIX	TEKTRONIX		GG		
BRAD BOOTH	MICROSOFT			GG		
				GG		
				GG		
				GG		