

# **IEEE P802.3av «10GEPON» Task Force**

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## **Closing Report to IEEE 802.3 WG**

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# Schedule

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- We reviewed 19 presentations
- **Tue AM:**
  - Optics presentations, Tutorials on EDC, SOA, Laser Safety
- **Tue PM:**
  - High-Split Ad Hoc Report
  - Power budget discussion
- **Wed AM:**
  - FEC discussions
- **Wed PM:**
  - Wavelength/Power Survey Ad Hoc Report
- **Thu AM:**
  - Other Topics: Asymmetric Rates, 10G CDR

# Ad Hoc on High-Split Ratio 10GEPON

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- Chair - Marek Hajduczenia from Siemens as well as 6 active contributors from Siemens, NTT, KDDI, ETRI, and Corning
- Reviewed very informative presentations on Channel Insertion Loss, Nonlinear Effects, and available Tx/Rx technologies.
- The task force has agreed that at the present time, 10GEPONs with 1x64 or 1x128 split ratios are not technically and/or economically feasible.
- The task force has decided not to add these configurations to our existing objectives.
- The ad hoc charter is completed and the group is disbanded.

# Ad Hoc on Wavelength Plan / Power Budgets

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- Chair: Shane Eleniak from Alloptic
- ~~Current task is to produce a survey document for carriers~~
- ~~Identified 42 operators (Telco and MSO) to contact~~
- ~~Survey draft is semi-stable. Will try to finalize this week~~
- ~~Must have responses by January meeting~~

We didn't do any of this

# New Direction

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- Decided to forgo the survey
- Tried straw polls to see how divergent the opinions are
- Found that there is more consensus than originally thought (fewer different options proposed)
- Made good progress

# Straw Polls

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1. Assumption: Upstream Max Channel Insertion Loss for 10G/1G (asymmetric mode) is a superset of the existing standard.

– Y:15 N:6 A:11 (33 people in room)

2. What Maximum Channel Insertion Loss? (Chicago rules)

– PX10: 20dB	Y:	9
– PX20: 24dB	Y:	9
– Class B+: 28dB	Y:	12
– Class B++: 29dB	Y:	18

## Straw Polls (Cont.)

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2b) How many 10 Gb Optical Power Budgets should we standardize on (Compatibility with PX10 and PX20 is assumed to be a requirement)?

- One: 1
  - Two: 0
  - Three: 24
  - No Opinion: 3
- (Total in the room 28)

# Straw Polls (Cont.)

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2c) Which 3 Maximum Channel Insertion Losses do you prefer?

- ~20dB, ~24dB, ~28 dB  
(i.e. PX10, PX20, B+): 6
- ~20dB, ~24dB, ~29 dB  
(i.e. PX10, PX20, B++): 13
- ~20dB, ~24dB, ~30 dB  
(i.e. PX10, PX20, C): 2
- No Opinion: 7

(Total in the room 29)

# Straw Polls (Cont.)

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## 3. What Wavelength plan?

### A) Upstream 10G: (33 people in room)

• 1310 nm	Y:	30	N:	1
• 1490 nm	Y:	0	N:	24
• 1550 nm	Y:	2	N:	25
• 1530-40 nm	Y:	17	N:	2
• 1560 nm and above:	Y:	18	N:	7

### B) Downstream 10G: (29 people in room)

• 1310 nm	Y:	0	N:	26
• 1490 nm	Y:	10	N:	12
• 1550 nm	Y:	8	N:	16
• 1530-40 nm	Y:	15	N:	6
• 1560 nm and above	Y:	21	N:	2

# Straw Polls (Cont.)

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4) Do you prefer Simultaneous Operation:

– Dual Rate PON: 1G/1G & 10G/1G

**Y: 14 N: 0**

– Dual Rate PON: 1G/1G & 10G/10G

**Y: 13 N: 5**

– Single Rate PON: (1G/1G): 1G/1G & 10G/1G Dual Speed ONUs:

**Y: 7 N: 0**

– Single Rate PON (1G/1G): 1G/1G & 10G/10G Dual Speed ONUs:

**Y: 3 N: 0**

– Needs further study:

**Y: 20 N: 0**

(Total in room 27)

# New Ad Hoc Groups

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- Ad Hoc to adapt Link Model spreadsheet for 10GEPON
  - Chair: Marek Hajduczenia
- Ad hoc to study FEC framing options
  - Chair: Jeff Mandin
- Ad Hoc to study Wavelength Plan/Power Budgets continues its work

# Topics for January Meeting

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- TDM Co-existence (10G + 1G upstream on the same wavelength)
- Bring ITU reasoning for 28 dB PMD class
- Firm proposals on Channel Loss/Wavelength Plan
- Further discuss FEC framing / advantages of shortened FEC frames

# Task Force Position on Interim Meetings

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- P802.3av has approved all three locations for interim meetings

	Jan 06 Monterey	May 07 Geneva	Sep 07 S. Korea
Definitely will attend	9	4	6
Likely will attend	26	30	23
Likely will not attend	2	5	10
Definitely will not attend	0	0	1
Motion to approve the time and location	Y: 32 N: 0 A: 5	Y: 38 N: 0 A: 3	Y: 32 N: 3 A: 6

(41 people in the room)

# Reflector and Web

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- To subscribe to 10GEPON reflector, send email to:

**[listserv@ieee.org](mailto:listserv@ieee.org)**

and include this line in the *body of the message*:

***subscribe stds-802-3-10GEPON*** *firstname lastname*

(Currently 263 subscribers on 10GEPON SG reflector)

- Our web site is located at:

**<http://www.ieee802.org/3/av/>**

- No private area yet