Chief Editor’s opening report

Pete Anslow, Ciena, P802.3bs Chief Editor

IEEE P802.3bs Task Force, Atlanta GA, USA, January 2016

Editorial team

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- Chief Editor and Editor for Clauses FM, 00, 1, 4, 30, 45, 78, 116, A, 4A, 31B, 93A, 120B, 120C

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- Editor for Clauses 122, 123

Andre Szczepanek, Inphi

- Editor for Annexes 120D, 120E

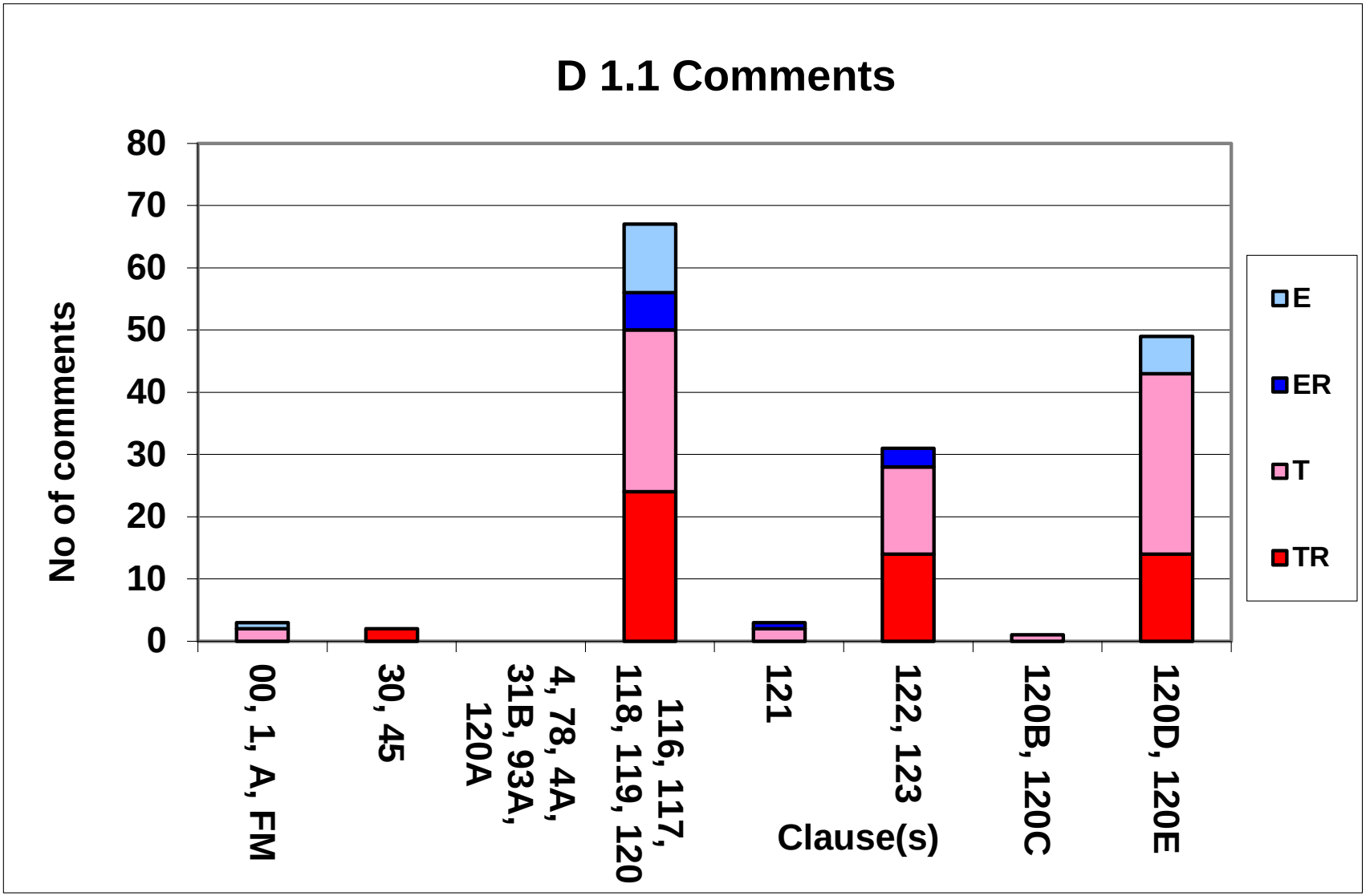
Status

P802.3bs D1.1 Task Force review

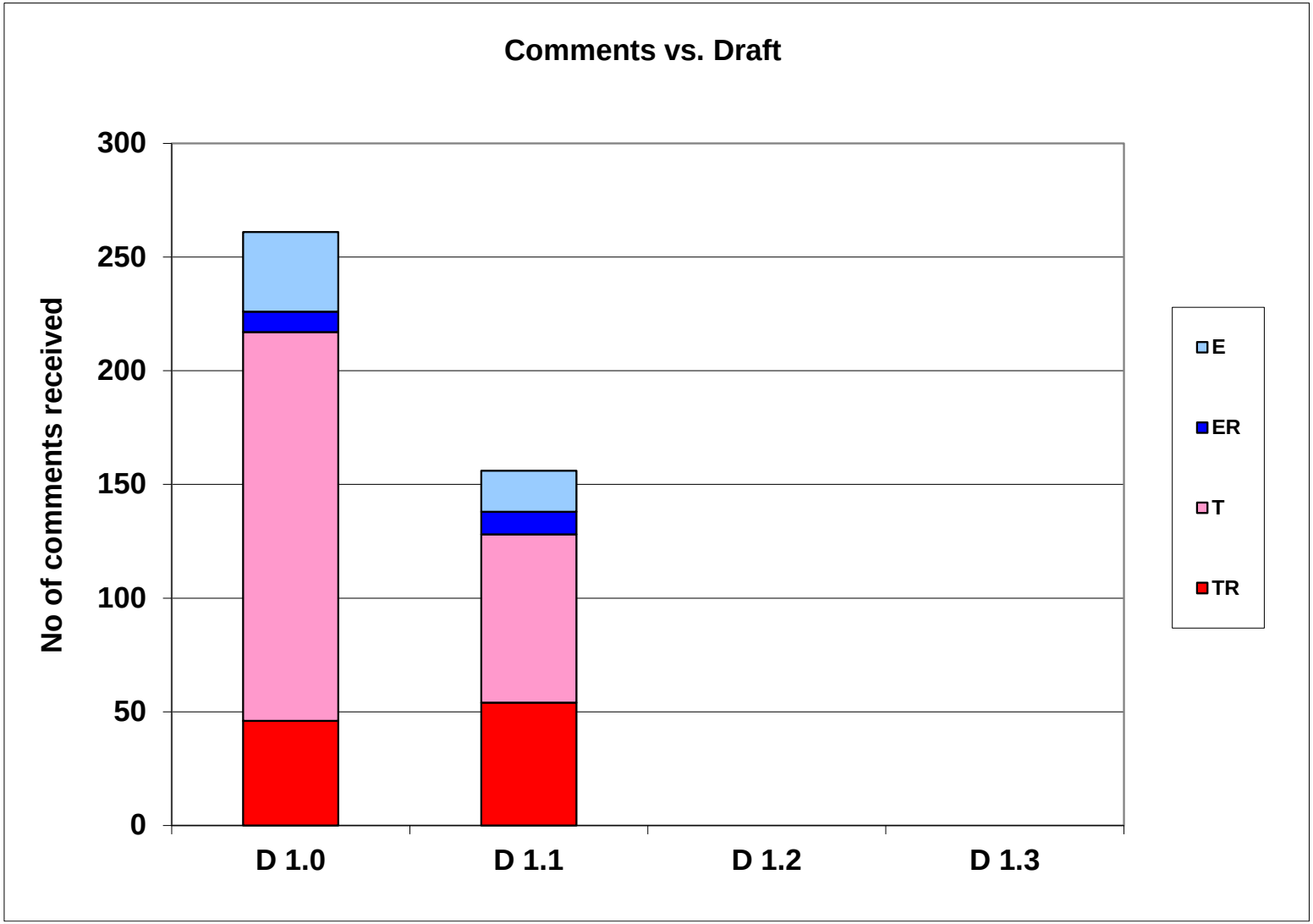
- Opened 1 December 2015, closed 20 December 2015
- 20 day comment period
- 156 comments received (including 2 late comments)
- Thanks to those who commented
- Proposed responses posted

Description	Clause(s)	TR	T	ER	E	Total
Front matter, Intro	00, 1, A, FM		2		1	3
Management	30, 45	2				2
Misc	4, 78, 4A, 31B, 93A, 120A					0
Intro, RS, PCS, PMA	116, 117, 118, 119, 120	24	26	6	11	67
MMF PMD	121		2	1		3
SMFPMDs	122, 123	14	14	3		31
CDAUI-16	120B, 120C		1			1
CDAUI-8	120D, 120E	14	29		6	49
Total comments		52	74	10	18	156

Comment distribution



Comment history



Meeting goals

Resolve comments against Draft 1.1

- Comment resolution agenda in later slides
- Any presentations associated with comments will be reviewed during comment resolution session
- T and TRs will be treated with same status, no signoff is required
- E and ERs will be treated with same status, no signoff is required

Editors have identified non-controversial comments as candidates for a bucket motion. These comments will not be reviewed individually, but will be resolved as proposed via a single motion.

The initial list of comments for the bucket motion is on slide 12 (also marked “Bucket” in comments file, please review this and ask for a comment to be taken off the list if you don’t agree with the proposed response.

Comment resolution

- The comments on the following slides will be resolved in sessions of the P802.3bs Task Force starting on 18 Jan.
  - Page 8 in Task Force on Monday
  - Page 9 in Logic track on Tuesday
  - Page 10 in Optics track on Tuesday
  - Page 11 in Electrical track on Tuesday
- The order in which the comments are reviewed and the schedule are **subject to change**
- Comments bracketed together with [] cover a common topic
  - Where a comment number is coloured blue it contains the proposed response for the group of comments
- Comments with underline (e.g., 300) have associated hyperlinked presentations.

Comments across clauses (20 comments) target Monday am

- 145 — PRBS31Q
- 47, [129, 130] — Bypass indication, correction
- 46 — Scrambled idle check
- 146 — AMs
- 93, 95, 103, [104, 109], 105, 106, 108, 110, 115, 116, 155, 156 — CRU bandwidth

Clause 45 (2 comments) target Monday am

[39, 136] — Recommended CTLE

Annex 120C (1 comment) target Monday am

- 148 — EH, EW, VEC

Hi_ber (1 comment) target Monday pm

- ofelt
- 67 — hi_ber

Clause 119 (42 comments) Logic track

• 137, [35, 18], 17	Functions
• 138, 7, [8, 139], 133, 11	Wording
• [19, 33], [20, 34]	Referred text
• [21, 9], 36	Rate adaptation
• [10, 143]	Table 119-1
• 37, 123, [124, 12], 125, 69, 126, 62, 66, 43	Transmit processes
• 38, 131, 44, 22, [45, 132], 64, 65	Receive processes
• [68, 5], 134, 135	State diagrams
• 140	General

Clause 120 (3 comments) Logic track

• 70	Gray mapping
• 71, 72	Test patterns

Clauses 121, 1 (4 comments) Optics track

- 4 — Link segment
- [26, 27], 25 — MDI

Clause 122, 123 (28 comments) Optics track

- bhatt, liu, way
- 97, 91, 92, 49, 52, 50, 48, 51, 98, 99, [102, 107] — Reflections
- [55, 84, 54, 85, 53, 86] — DR4 budget
- [100, 101], 56 — FR8/LR8 budget
- 87, 94, 57, 58 — Test methods
- [2, 3], 1 — Wording

Annex 120D (19 comments) Electrical track

• [83, 29]	D_p, N_p
• 80, 81	Exceptions
• [73, 118], [78, 117, 28]	R_LM
• [119, 32], 30, 122, [120, 121]	SNR, BER
• 96	Jitter
• [82, 31], 111	COM parameters

Annex 120E (14 comments) Electrical track

• 147, [61, 113]	BER
• [151, 152], 150	Transition time
• [23, 60]	CTLE
• 114, 153, 24	Measurement
• 112, 59, 154	General

Comments for bucket motion (22 comments)

• 88	Definitions
• 89, 90	CDXS
• 6, 40, 42, 63, 79, 127, 141, 142	Wording
• 75	Typo
• 13, 128	PCS lanes
• 14, 76	Xref
• [15, 16]	Flow
• 41	Figures
• 74, 77	Editing
• 144	Friday

Open questions for PCS and PMA

- How is hi_ber defined?
- PCS sublayer delay constraints and skew values are TBD or “magenta”
- 400G AM fields are TBD
- What criteria should be used for AM lock, unlock?
- PMA generated test patterns
  - Best guess included in the draft
- MMD Device Numbering
  - Can we reduce to three maximum PMA instances per end since there is no stand alone FEC separate from the PCS?
  - How does CDXS affect MMD device numbering?

Open questions for 400GBASE-SR16

- Adoption of RS(544,514,10) FEC increases the signaling rate from 25.78125 GBd for 100GBASE-SR4 to 26.5625 GBd and changes the BER from 5E-5 to 2.4E-4. What changes are needed to the specification to account for this?
- Hazard level
- MDI requirements

Open questions for 400GBASE-DR4/FR8/LR8 (PAM4 optics)

- Definition of OMA for a PAM4 modulation format
  - Are two definitions needed, one for inner and the other for outer?
  - Alternatively, is it better to define only outer OMA and control inner eye uniformity via a penalty?
- Definition of ER for a PAM4 modulation format
- TDP (Transmitter and Dispersion Penalty) is used to control transmitter eye quality and spectral characteristics for single-mode PMDs such as 100GBASE-LR4.
  - How will this be done for a PAM4 transmitter in 400GBASE-DR4/FR8/LR8?
  - What should the specification for the reference receiver be?
- Stressed receiver sensitivity
  - How should the stressed signal be generated?
  - How should the amount of stress in each sub-eye be controlled?
- Reflection budget
  - What reflection levels and penalty budget are needed?

Open questions for CDAUI-16

Chip-to-chip and chip-to-module

- Adoption of RS(544,514,10) FEC increases the signaling rate from 25.78125 GBd for CAUI-4 to 26.5625 GBd. Are any changes needed to the specification to account for this?

Chip-to-module

- CDAUI-16 will need a 16 way connector instead of a 4 way connector. Are there any changes required to the specification to account for this?

Open questions for CDAUI-8

- COM parameter magenta values
- Transition times
- Jitter parameters

Thanks!