802.3dm items to consider for comment at SA ballot

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Agenda

- Possible P802.3dm comments for D3.0
- Summary

Items to consider for comment on D3.0

1. Comment on tradeoffs between error correction and error detection.
   - While not quantified, this contribution noted that in certain noise environments certain FEC codes have a high probability of miscorrection which may degrade MTTFPA: https://www.ieee802.org/3/dm/public/0726/jonsson_3dm_01_0726.pdf
   - It may be a better use of RS-FEC capacity to shift from error correction to detection to increase the MTTFPA in certain noise environments. One possible approach is to allow for selection of t_{decode} instead of the implied t_{max} (t being the number of symbols that can be corrected). This or other approaches may be analyzed as the basis for comments on D3.0.
2. Update of Figure 192-6 to align MUX block control input with the “Rate select” added to Figure 192-13. Note 3 under Figure 192-6 may also be updated to incorporate the “Rate select” concept.
3. Redrawing of Figure 192-13/192-14. This figure could be split into one figure per PAM mode, or maintained as a combined drawing to emphasize that PAMx is a selectable mode of the PHY and that other elements are not duplicated per mode.

Items to consider for comment on D3.0 (cont.)

4. Clause 192 PICS has a typo that TX5G status is M, but should be O.3, while RX2.5G is O.4 but should be M
5. Equation (192-14) has 2 issues (comments against D2.2 were deferred due to scope):
   - PAM2_Mapper input is only An and is also defined for 0<=n<=Nr-1, but An is not defined for that range of n. The input for PAM2_Mapper should also include Cn as defined in 192.3.2.2.16.
   - PAM3_Mapper symbol indexing and bit indexing both use “n” which is inaccurate since there is not a 1:1 relationship between symbols and bits. A more precise representation of this relationship is useful.
6. Comments to improve alignment of delay constraints wording/concepts between the asymmetric PHY clauses if a common approach can be adopted.

Summary

- Some areas to expect comments for D3.0 were reviewed.
- Contributions/collaboration on the topics mentioned are welcome to help quick and efficient comment resolution during SA ballot.

Thank you for your attention!
Questions?

BACKUP MATERIAL