

Proposed Text for PAM4 Modulation

Contribution to IEEE 802.3cy

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Introduction

- PAM4 modulation is a good candidate for 802.3cy
- In particular, the PAM4 modulation defined in 802.3ch is a good starting point for 802.3cy modulation
- We suggest adopting modulation text from 802.3ch with appropriate changes for 802.3cy

Proposed Modulation Related Text for 802.3cy

We propose to adopt the text (with minor adjustments) from the following clauses:

- ❑ 149.3.1
- ❑ 149.3.2
 - Except for EEE sub-clause 149.3.2.2.22, which needs more discussion
- ❑ 149.3.3
- ❑ 149.3.4
- ❑ 149.3.5
- ❑ 149.5.2.4
- ❑ 149.5.2.5
- ❑ 149.5.2.6

Text Changes for 802.3cy

- The text from clause 149 needs to be updated to reflect 25Gbps data rate
- The RS-FEC block size may need to be changed to something other than (360,326)
- The PSD masks may need to be adjusted to account for high PCB insertion loss
- The text is expected to be subject to further change, based on future consensus

Specific changes to the text:

- XGMII changes to 25GMII
- 2.5G/5G/10G changes to 25G
- The S parameter is replaced by fixed values corresponding to S=2.5
- The L values for 25G are 1 and TBD, up to four choices.

Straw Poll

- I support adopting the modulation text for 802.3cy as described in slides 4 and 5 of [jonsson_etal_3cy_01a_09_21_21.pdf](#).

Motion

Move to adopt modulation text for 802.3cy as described in slides 4 and 5 of jonsson_etal_3cy_01a_09_21_21.pdf, with editorial license

- M: Ragnar Jonsson
- S:

Conclusion

We propose to adopt for 802.3cy the modulation text from 802.3ch with appropriate changes