

Clause 98 PHY TBDs and some proposals

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PHY baseline status

- Adopted Clause 55 baseline with modifications:
 - 4X symbol rate (3200 MSPS)
 - 0 dBm nominal TX power
 - At least 2 (0, 6dB), at most 3 PBO levels (12dB TBD)
 - Revised block encoding and protection of uncoded bits as per lo_4_0514.pdf
- Remaining items TBD:
 - Startup Timing (request for minor increase)
 - THP backchannel (no contributions to date)
 - Changes to management, autoneg, and test modes

Draft review – EEE Related

- How to do EEE: (proposals required)
 - Continue 10GBASE-T LPI?
 - Shrink refresh interval with BT or not?
 - Recommend: study, with goal of not scaling
 - Scale wake times with BT, or keep constant?
 - Recommend: scale wake times with BT
 - Fast wake?
 - Fast Retrain: keep or drop? (easier to keep)
 - Easier to keep, does no harm

Draft review - Startup Related

- Startup timing (table 55-9):
 - Need proposals– recommend 50% speedup (2 sec -> 1.5sec)
 - Shouldn't impact convergence of filters, and will conserve power
- PBO thresholds - need proposals
- Startup power level was at 8dB PBO
 - PBO -6dB?
- Simplifications?

Draft review – Transmit Electrical Specs

- Transmit PSD – scale to 0dBm power on 3.2Gbd
 - Eqn 55-9, 55-10, Fig 55-38: -9.2 dB, freq stretch 4X
- Output droop – scale with frequency
- Transmit Linearity – scale with frequency
- Transmitter timing jitter – Frequency scale
 - 200MHz signal → 800MHz, 5.5ps → 1.375ps, 1ms → 0.25ms measurement interval

Draft review – Receiver tests

- Common mode noise rejection – currently only goes to 1000MHz – should frequency extend
- Alien crosstalk injection level – need proposal for new level