TDD Baseline Text Proposals

A Leading Provider of Smart, Connected and Secure Embedded Solutions

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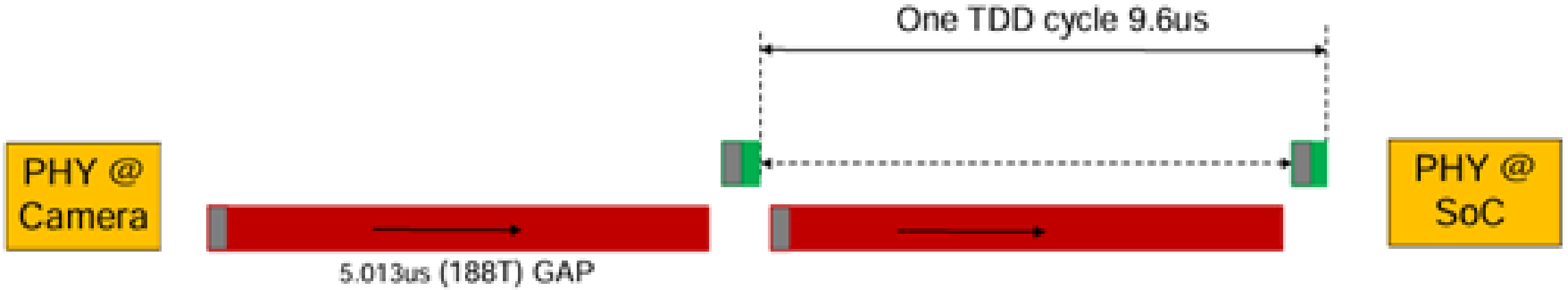
Introduction

This contribution proposes baseline text for:

- Refresh header format
  - Based on the proposal in gorshe_3dm_01_250729
- Link segment delay
  - Based on the proposal in gorshe_3dm_01_1125

Refresh Header Illustration (background reminder)



The burst resync headers are shown in the grey blocks at the beginning of the bursts

Proposed Refresh Header baseline (202.3.5.2.1)

- Based on previous discussions and the analysis and proposal of gorshe_3dm_01_250729, we propose the following baseline text for updating and adding to the first three paragraphs of 202.3.5:

"Each PMA training frame includes a refresh header followed by a training payload.

"Refresh header (refresh_hdr) is a sequence of PAM2 symbols with length of *N_r* symbols. Depending on which training phase and speed mode, training payload is a sequence of either PAM2 or PAM4 symbols with length of *N_p* symbols. The refresh header length is specified in multiples of 80 symbols, as shown in Table xx.

"The refresh hdr uses the PRBS11 (PN11) sequence defined in clause 72.6.10.2. The PRBS11 is sent until the last 8 bytes of the burst header. The next 4 bytes header shall consist of the PRBS11 sequence XOR'ed with 0x01, followed by 4 bytes of the PRBS11 sequence XORed with 0xF0.

Proposed Refresh Header baseline (202.3.5.2.1)

❑ (Continued)

"The 33 bit side-stream scrambler (see 202.3.4) is used to generate ~~both refresh header and~~ the training payload. Once started at the beginning of 1st burst, this scrambler shall continue to run uninterrupted for each symbol during ~~refresh headers and the~~ training payloads and shall stop during the Quiet and refresh headers."

[Note to Editor: Update the section 202.3.5.2 text for the refresh header bit generation accordingly.]

Table xx – Refresh header lengths

Data Rate and Direction	Number of Resync Header Symbols
Upstream (all rates)	640
Downstream for 2.5G	480
Downstream for 5G and 10G	960

Proposed Link Delay baseline text (202.9.1.6)

- Based on previous discussions and the analysis and proposal of gorshe_muma_3dm_01_1125, we propose the following baseline text for 202.9.1.6:

"The propagation delay of a link segment shall not exceed 90 ns at all frequencies between 2 MHz and *F*max MHz."

- *F*max is TBD, however if a specific value is needed here, we propose using 3600 MHz.

Proposal

- We propose adding the material of this contribution into the draft baseline 202 for the TDD PHY, with editorial license for the clause 202 Editor.
  - Both topics have been previously discussed and are based on proposals in presentations to the current or previous meetings.

Questions?