USB4 1.0 ENGINEERING CHANGE NOTICE FORM

Title: Increase LFPS Cycles When Responding
Applied to: USB4 Specification Version and 1.0

Brief description of the functional changes:
Increase the minimum number of LFPS cycles when exiting CLx in Gen 2/3

Benefits as a result of the changes:
Some Cables might consume some of the LFPS cycles, increasing the minimum number will improve robustness for CLx exit flows.

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
None

An analysis of the hardware implications:
None

An analysis of the software implications:
None

An analysis of the compliance testing implications:
None

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Actual Change

(a). Section 4.2.1.6.5.2, Gen 2 and Gen 3 Exit flow from CL1 or CL2 state (No Re-timers on the Link), Page 234

To Text:

Upon detecting 2 LFPS cycles, a Lane Adapter in CL1 or CL2 state shall:

1. Send a Low Frequency Periodic Signaling (LFPS) burst on the Lane for a duration of at least ~~3~~5 LFPS cycles (see Section 3.7) and for no more than tLFPSDuration. If the Lane Adapter is in CL1 state, the first LFPS shall be sent within tWarmUpCL1 after receiving the first LFPS cycle. If the Lane Adapter is in CL2 state, the first LFPS shall be sent within tWarmUpCL2 after receiving the first LFPS cycle.

(b). Section 4.2.1.6.5.3, Gen 2 and Gen 3 Exit flow from CL1 or CL2 state (Re-timers on the Link), Page 236

To Text:

Upon detecting 2 LFPS cycles, a Lane Adapter in CL1 or CL2 state shall:

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