

USB4 2.0 ENGINEERING CHANGE NOTICE FORM

Title: tTimeInCL0 Only Relevant in Gen 4 Link
Applied to: USB4 Specification Version 2.0

Brief description of the functional changes:

Modifies the objection for CL1 and CL2 that requires a minimum time in CL0 so it will be relevant only for a Gen 4 Link.
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Benefits as a result of the changes:

Since in Gen 2/3 there are flows to enter CL1/2 after CL0s immediately, the requirement to be in CL0 for a minimum time contradicts the flow described in the spec.

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

An analysis of the hardware implications:
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None.

An analysis of the software implications:
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None.

An analysis of the compliance testing implications:
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The verification of this objection will be for Gen 4 only.
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Actual Change Requested

(a). 4.2.1.6.3 - Objections

To Text:

- ~~If the Link is Gen 4 speed and L~~ess than tTimeInCL0 time has passed since the Lane 0 Adapter transitioned from CLx to CL0.

~~Note: A Ver. 1 Router may not assert this objection. Therefore, when operating with a Gen 2 or Gen 3 Link against a Ver. 1.0 Link Partner, a Router cannot assume that its Link Partner will stay in CL0 for tTimeInCL0 after exiting a CLx state.~~

(b). Table 4-72 – Logical Layer Timing Parameters

To Text:

Parameter	Description	Min	Max	Units
tTimeInCL0	The time a Lane Adapter stays in CL0 after exiting CLx <u>when the Link is Gen 4 speed.</u>	500	--	ns