

USB4 1.0 ENGINEERING CHANGE NOTICE FORM

Title: Removing Redundant Requirement in Asymmetric TxFFE

Applied to: USB4 Specification Version 1.0

Brief description of the functional changes:

Removes the redundant requirement to copy the read response to a local register. The local register is being used by the Receiver Primary Partner flow and writing to it might cause undefined behavior.
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Benefits as a result of the changes:

Clearer visibility on the Receiver Primary Partner flow and less requirement on the Transmitter Primary Partner flow.

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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None

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Actual Change

(a). Section 13.2.1.4.4.1 - Asymmetric TxFFE Parameter Negotiation with a Transmitting Primary Partner

To Text:

4. On reception of an AT Response from the receiver, the transmitter shall ~~copy the Transaction contents into its Rx Status & TxFFE Request byte and~~ take the following actions:
 - If *Rx Locked* = 1b, then negotiation is complete and no further TxFFE negotiation steps shall be taken.
 - Else if *New Request* = 0b and *TxFFE Request* is the same as the previous *TxFFE Request*, the receiver has not provided a new request yet. The Router shall go to Step 3. The Router shall perform Step 3 within tPollTXFFE of receiving the AT Response.
 - Else, this is a new request to update TxFFE parameters. Continue on to Step 5.

8. On reception of an AT Response from the receiver, the transmitter shall ~~copy the Transaction contents into its Rx Status & TxFFE Request byte and~~ take the following actions:
 - If *New Request* = 1b and *TxFFE Request* is the same as the previous *TxFFE Request*, the Router shall return to and perform Step 7 within tPollTXFFE of receiving the AT Response.
 - Else, go to Step 3.