

# USB4 1.0 ENGINEERING CHANGE NOTICE FORM

## Title: Removing Requirement to Check ReturnBounce Bit Applied to: USB4 Specification Version 1.0

<b>Brief description of the functional changes:</b>
---

Removing a redundant requirement in the Bounce mechanism in TBT-Compatibility mode.
---

<b>Benefits as a result of the changes:</b>
---

Aligning the specification with the current behavior of TBT3 Active Cables with Re-timers
---

<b>An assessment of the impact to the existing revision and systems that currently conform to the USB specification:</b>
--

None
------

<b>An analysis of the hardware implications:</b>
--

None
------

<b>An analysis of the software implications:</b>
--

None
------

<b>An analysis of the compliance testing implications:</b>
--

Need to verify that Routers don't check this bit.
---

# USB4 1.0 ENGINEERING CHANGE NOTICE FORM

## Actual Change

### (a). Section 13.2.1.2.2.1 – Bounce Mechanism

#### To Text:

The Bounce mechanism is used when a Router needs to access the Register Space of a Cable Re-timer that can only be accessed by its Link Partner. A Router shall support the Bounce Mechanism. The Bounce Mechanism consists of the following rules:

- A Router shall set the *Bounce* bit to 1b and the *ReturnBounce* bit to 1b to target a Cable Re-timer that is adjacent to the Router's Link Partner.
- A Router that receives an AT Transaction with the *Bounce* bit set to 1b and the *ReturnBounce* bit to 1b shall set the *Bounce* bit to 0b, then forward the AT Transaction towards its adjacent Cable Re-timer.

*Note: A Cable Re-timer responds to an AT Transaction with the Bounce bit set to 0b and the ReturnBounce bit to 1b. The AT Response from the Cable Re-timer has the Bounce Bit set to 1b and the ReturnBounce bit set to 0b.*

- A Router that receives an AT Response with the *Bounce* bit set to 1b and the *ReturnBounce* bit to 0b shall set the *Bounce* bit to 0b, then forward the AT Response to its Link Partner.

An example of the Bounce Mechanism is shown in Figure 13-2 where Router A is accessing the Configuration Space of Cable Re-timer B.

*Note: The Bounce Mechanism is only used when operating with a bi-directional Re-timer.*

# USB 1.0 ENGINEERING CHANGE NOTICE FORM

