USB4 1.0 ENGINEERING CHANGE NOTICE FORM

Title: Changes in Sideband Register Space for Lane 1 and Bonding
Applied to: USB4 Specification Version 1.0

Brief description of the functional changes:

Changes the default values of the Enabling Request (Lane 1) and Bonding Support bits to match the requirement to have two Lanes and the capability to Bond them.

Benefits as a result of the changes:

Consistency with the rest of the spec and the Re-timer spec.

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). Table 4-17, SB Register Fields, Page 129

To Text:

12	Link Configuration	0	0	**Enabling Decision (Lane 0)** – Shall indicate whether or not the Lane 0 Adapter is enabled during Lane Initialization. 0b – Not enabled 1b – Enabled	RO	0b
			1	**Enabling Decision (Lane 1)** – Shall indicate whether or not the Lane 1 Adapter is enabled during Lane Initialization. 0b – Not enabled 1b – Enabled	RO	0b
			7:2	**Reserved**	Rsvd	0
		1	0	**Enabling Request (Lane 0)** – Indicates whether the Router requests enabling for Lane 0. 0b – No request to enable 1b – Request to enable A Router shall set this bit to 0b when the *Lane Disable* bit in the Lane Adapter Configuration Capability for Lane 0 is 1b. Otherwise, this bit shall be set to 1b	RO	~~Vendor Defined~~1b
			1	**Enabling Request (Lane 1)** – Indicates whether the Router requests enabling for Lane 1. 0b – No request to enable 1b – Request to enable A Lane 1 Adapter shall not request enabling unless the Lane 0 Adapter requests enabling. ~~A USB4 Port shall only set this bit to 1b if all On-Board Re-timers connected between the Router and the cable support dual Lanes. The method of conveying the capabilities of an On-Board Re-timer to the Router is implementation specific.~~ A Router shall set this bit to 0b when the *Lane Disable* bit in the Lane Adapter Configuration Capability for Lane 1 is 1b. Otherwise, this bit shall be set to 1b	RO	~~Vendor Defined~~1b
			3:2	**Reserved**	Rsvd	0
			4	**Bonding Support** – Indicates whether Lane Bonding is supported for this USB4 Port. 0b – Lane Bonding is not supported 1b – Lane Bonding is supported	RO	~~Vendor Defined~~1b