

USB4 2.0 ENGINEERING CHANGE NOTICE FORM

Title: PTM ResponseD over USB4

Applied to: USB4 Specification Version 2.0

Brief description of the functional changes:

Clarify that when sending PTM ResponseD over the Tunnel, TMU_to_PTM_A[7:0] is sent first.

Benefits as a result of the changes:

Remove the ambiguity around the byte order of TMU_to_PTM_A and accurately describe the ecosystem.

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:
--

PTM implementation over USB4 must implement to this change.

An analysis of the software implications:
--

None.

An analysis of the compliance testing implications:
--

None.

USB4 2.0 ENGINEERING CHANGE NOTICE FORM

Actual Change

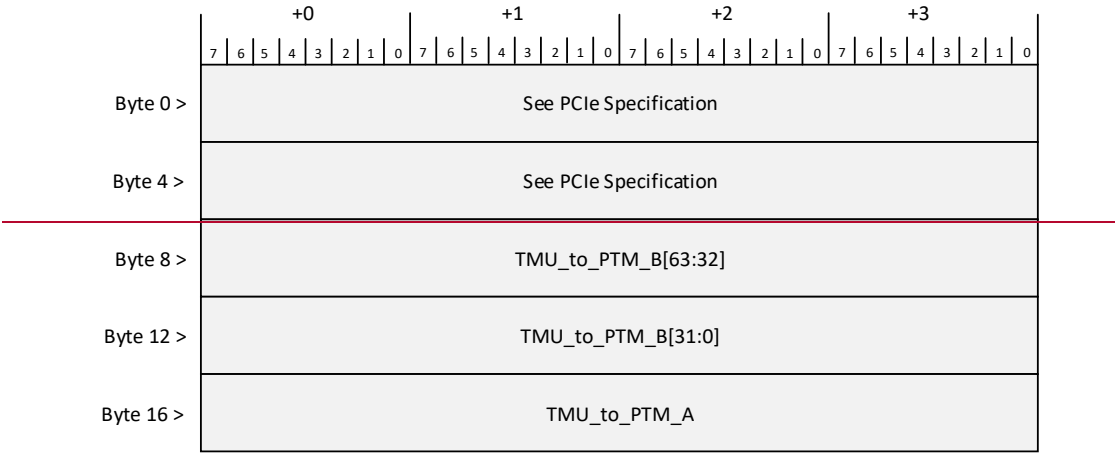
(a). 11.2.4.1 Parameter Generator

The following Routers shall act as a Parameter Generator:

- A Host Router with its PTM function enabled.
- A Device Router with its PTM function enabled and the *Root Select* bit in its PTM Control Register set to 1b.

Instead of the *PTM Master Time* and *Propagation Delay* fields defined in the PCIe Specification, a Parameter Generator shall include the most recent TMU_to_PTM Parameters in the PTM ResponseD Message. ~~The format and example of a PTM ResponseD over the PCIe Tunnel is as~~ depicted in Figure 11-8.

Figure 11-8: PTM ResponseD ~~Tunneled Packet Format~~Message



USB4 2.0 ENGINEERING CHANGE NOTICE FORM

31

0

PDF = 3	*	HOP ID	Length = 1Ch	HEC
{TYPE,LEN[10:7]} = F0h		{LEN[6:0],CHK[4]} = 05h	{CHK[3:0],TLP Seq[11:8]} = 70h	TLP Seq[7:0] = 1Bh
Header 0 = 74h		Header 1 = 00h	Header 2 = 00h	Header 3 = 01h
Header 4 = 56h		Header 5 = 20h	Header 6 = 00h	Header 7 = 53h
TMU_to_PTM_B [63:56] = F2h		TMU_to_PTM_B [55:48] = 44h	TMU_to_PTM_B [47:40] = E9h	TMU_to_PTM_B [39:32] = 09h
TMU_to_PTM_B [31:24] = FDh		TMU_to_PTM_B [23:16] = 97h	TMU_to_PTM_B [15:8] = 7Eh	TMU_to_PTM_B [7:0] = 03h
TMU_to_PTM_A [7:0] = 5Dh		TMU_to_PTM_A [15:8] = F5h	TMU_to_PTM_A [23:16] = 1Ah	TMU_to_PTM_A [31:24] = 80h
LCRC[31:24] = EBh		LCRC[23:16] = 5Dh	LCRC[15:8] = E2h	LCRC[7:0] = 5Ah

* SupplD

Note: TMU to PTM A[7:0] is sent first.