

USB PD CTS ENGINEERING CHANGE NOTICE FORM

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Title: Update tSenderResponse timing

Applied to: USB PD CTS Specification Version 1.4v3

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| Brief description of the functional changes proposed: |
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| tSenderResponse has been updated into USBPD spec r3.1v1.4 from 24-30ms to 26-32ms |
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| Benefits as a result of the proposed changes: |
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| USBPD spec alignment. |
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| An assessment of the impact to the existing revision and systems that currently conform to the USB specification: |
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| An analysis of the hardware implications: |
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| none |
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| An analysis of the software implications: |
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| none |
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| An analysis of the compliance testing implications: |
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| Tester SW shall be updated |
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| An analysis of the Vendor Info File (VIF) implications: |
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| None |
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Actual Change Requested

(a). Section x.x.x, Page x, Figure/Table x-x

From Text:

TEST.PD.USB4.DRST.1 Data_Reset command response of UFP UUT

Test Procedures:

1. Bring up the UUT with bring-up procedure COMMON.PROC.BU2
2. The Tester sends "Data_Reset" message to UUT
3. The Tester checks for response.
 - a. If the tester receives message 'Not_Supported' and the VIF field 'Data_Reset_Supported=No', the check passes and test ends here. [TEST.PD.USB4.DRST.1#1]
 - b. If the tester doesn't receive "Not_Supported" and the VIF field 'Data_Reset_Supported=No', the check fails and test ends here. [TEST.PD.USB4.DRST.1#2]
 - c. If the tester doesn't receive "Accept" in tSenderResponse (30mS) and the VIF Field Data_Reset_Supported= Yes. The check fails and test end here [TEST.PD.USB4.DRST.1#3]
 - d. If the tester receives "Accept" in tSenderResponse (30mS), tester perform below step
 - a. Tester Power Cycle Vconn in accordance with requirements

To Text:

TEST.PD.USB4.DRST.1 Data_Reset command response of UFP UUT

Test Procedures:

1. Bring up the UUT with bring-up procedure COMMON.PROC.BU2
2. The Tester sends "Data_Reset" message to UUT
3. The Tester checks for response.
 - a. If the tester receives message 'Not_Supported' and the VIF field 'Data_Reset_Supported=No', the check passes and test ends here. [TEST.PD.USB4.DRST.1#1]
 - b. If the tester doesn't receive "Not_Supported" and the VIF field 'Data_Reset_Supported=No', the check fails and test ends here. [TEST.PD.USB4.DRST.1#2]
 - c. If the tester doesn't receive "Accept" in tReceiverResponse and the VIF Field Data_Reset_Supported= Yes. The check fails and test end here [TEST.PD.USB4.DRST.1#3]
 - d. If the tester receives "Accept" in tReceiverResponse, tester perform below step
 - a. Tester Power Cycle Vconn in accordance with requirements

From Text:

TEST.PD.USB4.DRST.2 Data_Reset command response of UFP UUT, Invalid sequence

Test Procedures:

1. Bring up the UUT with bring-up procedure COMMON.PROC.BU.2
2. The Tester sends "Data_reset" message to UUT

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3. The Tester checks for response.

a. If the tester doesn't receive "Accept" in **tSenderResponse (30mS)**, the check fails.

[TEST.PD.USB4.DRST.2#1]

b. If the tester receives "Accept" in **tSenderResponse (30mS)**, tester perform below steps

[TEST.PD.USB4.DRST.2#2]

a. Power Cycle Vconn in accordance with requirements

To Text:

TEST.PD.USB4.DRST.2 Data_Reset command response of UFP UUT, Invalid sequence

Test Procedures:

1. Bring up the UUT with bring-up procedure COMMON.PROC.BU.2

2. The Tester sends "Data_reset" message to UUT

3. The Tester checks for response.

a. If the tester doesn't receive "Accept" in **tReceiverResponse**, the check fails. [TEST.PD.USB4.DRST.2#1]

b. If the tester receives "Accept" in **tReceiverResponse**, tester perform below step

[TEST.PD.USB4.DRST.2#2]

a. Power Cycle Vconn in accordance with requirements

From Text:

TEST.PD.USB4.DRST.3 Data_Reset command response of UFP UUT, Sourcing Vconn

The Tester checks for response.

a. If the tester doesn't receive "Accept" in **tSenderResponse (30mS)**, the check fails.

[TEST.PD.USB4.DRST.3#2]

b. If the tester receives "Accept" in **tSenderResponse (30mS)**, tester perform below steps

To Text:

TEST.PD.USB4.DRST.3 Data_Reset command response of UFP UUT, Sourcing Vconn

The Tester checks for response.

a. If the tester doesn't receive "Accept" in **tReceiverResponse**, the check fails. [TEST.PD.USB4.DRST.3#2]

b. If the tester receives "Accept" in **tReceiverResponse**, tester perform below steps

From Text:

TEST.PD.USB4.DRST.4 Data_Reset command response of UFP UUT, Sourcing Vconn – Invalid Sequence

2. Tester sends Vconn_Swap message to bring UFP UUT as Vconn provider. Tester check the response.

[TEST.PD.USB4.DRST.4#1]

a. If the UUT responds with a Wait message and the Tester resends VCONN_Swap every tVCONNSwapWait + 15ms for 10 times. The check fails and the test ends here if the Tester has resent VCONN_Swap for 10 times.

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b. The check fails and test ends here if the UUT does not send an Accept message.

3. Tester send message "Data_Reset" message to UUT

4. The Tester checks for response.

c. If the tester doesn't receive "Accept" in tSenderResponse (30mS), the check fails. [TEST.PD.USB4.DRST.4#2]

To Text:

TEST.PD.USB4.DRST.4 Data_Reset command response of UFP UUT, Sourcing Vconn – Invalid Sequence

2. Tester sends Vconn_Swap message to bring UFP UUT as Vconn provider. Tester check the response. [TEST.PD.USB4.DRST.4#1]

a. If the UUT responds with a Wait message and the Tester resends VCONN_Swap every tVCONNSwapWait + 15ms for 10 times. The check fails and the test ends here if the Tester has resent VCONN_Swap for 10 times.

b. The check fails and test ends here if the UUT does not send an Accept message.

3. Tester send message "Data_Reset" message to UUT

4. The Tester checks for response. [TEST.PD. USB4.DRST.4#2]

c. If the tester doesn't receive "Accept" in tReceiverResponse, the check fails. [TEST.PD. USB4.DRST.4#2]