

USB PD CTS ENGINEERING CHANGE NOTICE FORM

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Title: TEST.PD.PHY.ALL.7 Report Name fix etc

Applied to: USB PD CTS Specification r1.4 v3

Brief description of the functional changes proposed:
TEST.PD.PHY.ALL.7#9 has been used twice. Second use changed to TEST.PD.PHY.ALL.7#10 Spelling error fixed

Benefits as a result of the proposed changes:

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:

An analysis of the hardware implications:

An analysis of the software implications:

An analysis of the compliance testing implications:

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Actual Change Requested

Changes in red

To Text:

*TEST.PD.PHY.ALL.7 Valid SOP**

Description: The Tester checks that the UUT responds correctly to valid SOP*.

Test Specific Tester Behavior: N/A

Test Conditions:

	Consumer Only	Provider Only, P/C	DRP, C/P	Free Cable	VPD, Captive Cable, Si-Only eMarker
<i>Rev3ChkdSrc</i>		✓			
<i>Rev3ChkdSnk</i>	✓		✓		
<i>Rev3VcMinEnd1</i>				✓	✓
<i>Rev3VcMaxEnd1</i>				✓	✓
<i>Rev3VcMinEnd2</i>				✓	
<i>Rev3VcMaxEnd2</i>				✓	

Test Procedures:

1. There are 4 possible bring-up procedures:
 - a. The UUT has VIF field PD_Port_Type set to Consumer Only, Consumer/Provider or DRP. The Tester behaves as a Source only and it runs bring-up procedure with the UUT as a Sink COMMON.PROC.BU.2
 - b. The UUT has VIF field PD_Port_Type set to Provider Only or Provider/Consumer. The Tester behaves as a Sink only and it runs bring-up procedure with the UUT as a Source COMMON.PROC.BU.1.
 - c. The UUT has VIF field VIF_Product_Type set to Cable. The Tester runs bring-up procedure with the UUT as a Cable Plug COMMON.PROC.BU.3
 - d. The UUT has VIF field VIF_Product_type set to Port Product and PD_Port_type set to eMarker. The Tester runs bring-up procedure with the UUT as a VPD COMMON.PROC.BU.10
 - e. The UUT has VIF field PD_Port_Type set to DRP, Consumer/Provider or Consumer only, and VIF parameter Captive_Cable is set to YES, and VIF parameter eMarked Captive Cable is set to YES*. The Tester runs bring-up procedure with the UUT as a Sink UUT for Captive Cable Test COMMON.PROC.BU.6.

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- f. The UUT has VIF field PD_Port_Type set to Provider/Consumer or Provider only, and VIF parameter Captive_Cable is set to YES, and VIF parameter eMarked Captive Cable is set to YES*. The Tester runs bring-up procedure with the UUT as a Source UUT for Captive Cable Test COMMON.PROC.BU.11.
2. The Tester sends 10 BIST Test Data messages using SOP packet.
 - a. If SOP_Capable = NO, the check fails if the UUT respond with a GoodCRC [TEST.PD.PHY.ALL.7#1]
 - b. If SOP_Capable = YES, the check fails if the UUT does not respond with a ~~GoodCRC~~ GoodCRC. [TEST.PD.PHY.ALL.7#2] ←
3. The Tester sends 10 BIST Test Data messages using SOP'.
 - a. If SOP_P_Capable = NO, the check fails if the UUT responds with a GoodCRC. [TEST.PD.PHY.ALL.7#3]
 - b. The check fails if
 - i. VIF_Product_Type = Port **and**
 - ii. PD_Port_Type != eMarker **and**
 - iii. Captive_Cable_Is_eMarked = NO **and**
 - iv. (UUT is not the Vconn Source or UUT is not actively sourcing Vconn)and UUT does respond with a GoodCRC. [TEST.PD.PHY.ALL.7#9]
 - c. The check fails if
 - i. VIF_Product_Type = Cable or
 - ii. PD_Port_Type = eMarker or
 - iii. Captive_Cable_Is_eMarked = YESthe UUT does not respond with a GoodCRC [TEST.PD.PHY.ALL.7#4]
4. The Tester sends 10 BIST Test Data messages using SOP''.
 - a. If SOP_PP_Capable = NO, the check fails if the UUT responds with a GoodCRC. [TEST.PD.PHY.ALL.7#5]
 - b. The check fails if
 - i. VIF_Product_Type = Port **and**
 - ii. PD_Port_Tyoe != eMarker **and**
 - iii. Captive_Cable_Is_eMarked = NO **and**
 - iv. (UUT is not the Vconn Source or UUT is not actively sourcing Vconn)and UUT responds with a GoodCRC. [TEST.PD.PHY.ALL.7#9-10] ←
 - c. The check fails if
 - i. (VIF_Product_Type = Cable or Captive_Cable_Is_eMarked = YES) and
 - ii. SOP_PP_Capable = YESand the UUT does not respond with a GoodCRC. [TEST.PD.PHY.ALL.7#6]
5. The Tester sends 10 BIST Test Data messages using SOP'_Debug.
 - a. The check fails if SOP_P_Debug_Capable = NO and the UUT responds with a GoodCRC [TEST.PD.PHY.ALL.7#7]
6. The Tester sends 10 BIST Test Data messages using SOP''_Debug.
 - a. The check fails if SOP_PP_Debug_Capable = NO and the UUT responds with a GoodCRC [TEST.PD.PHY.ALL.7#8]