

# USB PD CTS ENGINEERING CHANGE NOTICE FORM

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**Title: Disconnect Failure Check**

**Applied to: USB PD CTS Specification Version 1.0 Revision 1**

<b>Brief description of the functional changes proposed:</b>
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Add specific Common Check for a UUT that spontaneously does Error Recovery.
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<b>Benefits as a result of the proposed changes:</b>
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Gives us a defined way to report the issue.
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<b>An assessment of the impact to the existing revision and systems that currently conform to the USB specification:</b>
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<b>An analysis of the hardware implications:</b>
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<b>An analysis of the software implications:</b>
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<b>An analysis of the compliance testing implications:</b>
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<b>An analysis of the Vendor Info File (VIF) implications:</b>
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## Actual Change Requested

### (a). Section 1.4

#### Add Text:

#### 1.4.8 Reporting When Test Cannot Be Completed

When a Test cannot be completed because, for example, the UUT unexpectedly removes VBUS when behaving as a Source, or performs an unexpected Error Recovery, the Checks that could not be made shall return the result 'FAIL' together with the failure explanation being 'Test could not be completed'. This is to avoid an ambiguous result such as 'NOT TESTED'.

### (b). Section 3.1.1

#### To Text:

#### **COMMON.CHECK.PD.5 Check Unexpected Messages and Signals**

Description: The Tester performs additional protocol checks on unexpected messages sent by the UUT.

Check Applicability: All PD messages

The check fails if the UUT unexpectedly removes VBUS when behaving as a Source, or performs an unexpected Error Recovery. [COMMON.CHECK.PD.5#5].

Unless specifically mentioned, the check fails if Soft\_Reset message (using SOP packet) is sent by the UUT during a test [COMMON.CHECK.PD.5#1].

Unless specifically mentioned, the check fails if the UUT sends a Hard Reset or a Cable Reset signal [COMMON.CHECK.PD.5#2].

Unless specifically mentioned, the check fails if GotoMin message is sent by the UUT [COMMON.CHECK.PD.5#3]. The Tester does not set the GiveBack flag during a test.

The following messages sent by the UUT are unexpected during a test when the Tester is in *PE\_SRC\_Ready*, *PE\_SNK\_Ready* or *PE\_CBL\_Ready* state (Policy Engine States as described in the base specification), and the check fails. This does not apply to such messages when they are expected in these states as a normal part of the protocol (examples are Not Supported received after an Alert, Firmware\_Update\_Request or Security\_Request).

[COMMON.CHECK.PD.5#4]:

In PD2 Mode:

- GoodCRC
- BIST
- Sink\_Capabilities
- Accept
- Reject
- Wait
- PS\_RDY
- Structured VDM response (ACK, NAK, BUSY)
- Ping (when the UUT is not in *PE\_SRC\_Ready*)

In PD3 Mode:

- GoodCRC
- BIST
- Sink\_Capabilities
- Accept

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- Reject
- Wait
- PS\_RDY
- Structured VDM response (ACK, NAK, BUSY)
- Ping (when the UUT is not in *PE\_SRC\_Ready*)
- Not Supported
- Battery Status
- Source\_Capabilities\_Extended
- Status
- Battery\_Capabilities
- Manufacturer\_Info
- PPS\_Status
- Country\_Info
- Country\_Codes
- Sink\_Capabilities\_Extended
- Data\_Reset\_Complete
- Source Info
- Revision