USB Type-C ENGINEERING CHANGE NOTICE

Title: USB Type-C Receptacle Mid-Plate Shorting Text
Applied to: USB Type-C Spec Release 2.0, August 2019.

Brief description of the functional changes proposed:
Revise text to clarify that the receptacle mid-plate is not allowed to contact Vbus pins in the plug.

Benefits as a result of the proposed changes:
Prevents receptacle designs that can cause shorting between the mid-plate (ground) and Vbus pins in the plug.

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
Unknown but believe impact is minor, that few if any certified receptacles might violate the requirement.

An analysis of the hardware implications:
Future receptacles must comply.

An analysis of the software implications:
None

An analysis of the compliance testing implications:
Add continuity test to CTS to verify open between receptacle DUT ground and plug pins A4, A5, A6, A7, A8, A9, B4, B5, B6, B7, B8, and B9.

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Actual Change Requested

(a). In Section 3.2.1 revise text of Key Features item 2.

From Text:

A mid-plate is required between the top and bottom signals inside the receptacle tongue to manage crosstalk in full-featured applications. The mid-plate shall be connected to the PCB ground with at least two grounding points. A reference design of the mid-plate is provided in Section **Error! Reference source not found.**

To Text:

A mid-plate is required between the top and bottom signals inside the receptacle tongue to manage crosstalk in full -featured applications. The mid-plate shall be connected to the PCB ground with at least two grounding points. The mid-plate shall be designed such that plug pins A4, A5, A6, A7, A8, A9, and B4, B5, B6, B7, B8, B9 do not short to ground during the connector mating process with an effective 6.2 mm receptacle shell implementation. If the receptacle connector has a short shell or no shell, the connector manufacturer shall provide an effective length shell fixture for compliance testing. A reference design of the mid-plate is provided in Section 3.2.2.1.