

USB Power Delivery ENGINEERING CHANGE NOTICE

Title: Remove PD and USB bcdDevice association Applied to: USB Power Delivery Specification Revision 2.0 Version 1.2

Brief description of the functional changes:

Remove the requirement that Product ID and bcdDevice in the Product VDO should be the same as Product ID and bcdDevice in the USB Device Descriptor.

Benefits as a result of the changes:

Typically, the firmware for the USB PD part and the firmware for the USB Device Descriptor part of a design are updated independently. Requiring that the USB PD and USB Device Descriptor fields are the same in the USB PD and USB Device Descriptor implementations is onerous, as this would require synchronized firmware updates so that when one needs to change, the other changes in lockstep. The various of the properties encoded in the structure of Product ID and bcdDevice in the two cases are unrelated, thus it is beneficial to implementation design if the structures are allowed to be independent. It is unclear how an operating system could link the USB Device Descriptor and USB PD aspects of the system design. If this is desired, then Container ID would be a better mechanism to use.

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

The contents of the Product ID and bcdDevice fields are manufacturer defined and therefore are only useful to the manufacturer who owns the VID and the PID. When allowed to be different between the USB PD part and the USB Device Descriptor part of a design, the manufacturer knows what the fields mean in the two cases. The impact of the change is to allow a design freedom not previously present, and thus will have no impact on existing designs.

An analysis of the hardware implications:

None

An analysis of the software implications:

None

An analysis of the compliance testing implications:

A compliance test should be removed

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Actual Change

(a). Section 6.4.4.3.1.1.9, Page 134

From Text:

Manufacturers should set the USB Product ID field to a unique value identifying the product and should set the bcdDevice field to a version number relevant to the release version of the product. For USB Devices or Hubs which support USB communications the Product ID and bcdDevice fields shall be identical to the Product ID and bcdDevice fields defined in the product's USB Device Descriptor (see *[USB 2.0]* and *[USB 3.1]*).

To Text:

Manufacturers should set the USB Product ID field to a unique value identifying the product and should set the bcdDevice field to a version number relevant to the release version of the product. ~~For USB Devices or Hubs which support USB communications the Product ID and bcdDevice fields shall be identical to the Product ID and bcdDevice fields defined in the product's USB Device Descriptor (see *[USB 2.0]* and *[USB 3.1]*).~~