

ECN for USB Power Delivery Specification Revision 3.2

Version 1.1, 2024-10

Title: iOvershoot removal

Brief description of the functional changes proposed:
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No functional changes are being proposed. Removing iOvershoot doesn't functionally change the spec. A Sink should be able to change the load as it sees fit as long as iLoadStepRate, and iLoadReleaseRate are maintained

Benefits as a result of the proposed changes:
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Easier to read

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
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No impact

An analysis of the hardware implications:
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An analysis of the software implications:
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An analysis of the compliance testing implications:
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Actual Change Requested

(a). Section 7.2.6, Page 336

From Text:

When a Sink's operating current changes due to a load step, load release or any other change in load level, the positive or negative overshoot of the new load current **Shall Not** exceed the range defined by **iOvershoot**. For the purposes of measuring **iOvershoot** the new load current value is defined as the average steady state value of the load current after the load step has settled. The rate of change of any shift in Sink load current during normal operation **Shall Not** exceed **iLoadStepRate** (for load steps) and **iLoadReleaseRate** (for load releases) as measured at the Sink receptacle.

The Sink's operating current **Shall Not** change faster than the value reported in the Source's Load Step Slew Rate in its **Voltage Regulation** bit field and **Shall** ensure that PD Communications meet the transmit and receive masks as specified in [Section 5.8.2, "Transmit and Receive Masks"](#).

To Text (Section 4.2.6):

The rate of change of any shift in Sink load current during normal operation Shall Not exceed **iLoadStepRate** (for load steps) and **iLoadReleaseRate** (for load releases) as measured at the Sink receptacle.

The Sink's operating current Shall Not change faster than the value reported in the Source's Load Step in its Voltage Regulation bit field and Shall ensure that PD Communications meet the transmit and receive masks as specified in [Section 5.3.4.1, "Transmit Mask"](#) and [Section 5.3.4.2, "Receive Masks"](#).