

USB Power Delivery ENGINEERING CHANGE NOTICE

Title: PPS Status measurements

Applied to: USB Power Delivery Specification Revision 3.0

Version 1.1 + ECNs through 22 September 2017

Brief description of the functional changes proposed:
Clarifies the PPS Status definition of the voltage and current as measured values and specifies the measurement accuracy and where they are measured.

Benefits as a result of the proposed changes:
Sink knows what the PPS status values mean.

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
Minimal as there are currently no certified PPS chargers.

An analysis of the hardware implications:
Will require PPS chargers that support the optional voltage and current fields in the PPS Status to have hardware to measure the values.

An analysis of the software implications:
none

An analysis of the compliance testing implications:
Compliance testing is already in place – however will require them to evaluate the values differently. The compliance WG is already aware of this.

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Actual Change Requested

(a). Section 6.5.10.1, Page 175

From Text:

The Output Voltage field **Shall** return the Source's output voltage at the time of the request. It is measured at the Source's receptacle or if the Source has a captive cable, it measured where the voltage is applied to the cable. If the Source does not support this field, it **Shall** be set to 0xFFFF.

To Text:

The Output Voltage field **Shall** return the Source's output voltage at the time of the request. The **output voltage** is measured **either** at the Source's receptacle or, if the Source has a captive cable, ~~it measured~~ where the voltage is applied to the cable.

The measurement accuracy Shall be +/-3% rounded to the nearest 20mV.

If the Source does not support **the Output Voltage field**, **the field Shall** be set to 0xFFFF.

(b). Section 6.5.10.2, Page 175

From Text:

The Output Current field **Shall** return the Source's output current at the time of the request. If the Source does not support this field, it **Shall** be set to 0xFF.

To Text:

The Output Current field **Shall** return the Source's output current at the time of the request **measured at the Source's receptacle.**

The measurement accuracy Shall be +/-150mA.

If the Source does not support **the Output Current field**, **the field Shall** be set to 0xFF.