

UCSI ENGINEERING CHANGE NOTICE FORM

Title: Adding PD Revision for Partners and Cables Applied to: UCSI Specification Version 2.0 Revision 1

Brief description of the functional changes:

(1) Update GET_CONNECTOR_CAPABILITY data and GET_CABLE_PROPERTY data to include PD major revision information for partners and cables, respectively. (2) Add Get_Revision/Revision to the GET_PD_MESSAGE command for requesting minor revisions.

Benefits as a result of the changes:

This change will allow systems following the UCSI specification to accurately process information about partners and cables returned in GET_PD_MESSAGE data.

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

The definitions of GET_CONNECTOR_CAPABILITY data, GET_CABLE_PROPERTY data and GET_PD_MESSAGE command will be updated.

An analysis of the hardware implications:

N/A

An analysis of the software implications:

The PD controller will need to store the 2-bit major revision field from the PD message header in GET_CONNECTOR_CAPABILITIES data for SOP messages and CABLE_PROPERTY data for SOP' messages. Additionally, it will need to be able to send the Get_Revision control message defined in the USB PD Revision 3.1 specification.

An analysis of the compliance testing implications:

Compliance testing will need to confirm that cable and partner USB PD major revision information is available in GET_CABLE_PROPERTY data and GET_CONNECTOR_CAPABILITY data. Additionally, compliance testing should check that the Get_Revision PD control message is correctly sent to partners and cables.

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Actual Change Requested

(a). Table 4-17: GET_CONNECTOR_CAPABILITY Data

From Text:

27 *Reserved* 5 Set to zero.

To Text:

27	<i>Partner PD Revision</i>	2	Partner's major USB PD Revision from the Specification Revision field of the USB PD Message Header
29	<i>Reserved</i>	3	Set to zero.

(b). Table 4-40: GET_CABLE_PROPERTY Data

From Text:

30 *Reserved* 2 Reserved and shall be set to zero.

To Text:

30	<i>Cable PD Revision</i>	2	Cables's major USB PD Revision from the Specification Revision field of the USB PD Message Header
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(c). Table 4-51 GET_PD_MESSAGE Command

From Text:

42	<i>Response Message Type</i>	6		
		Value	PD Response Message	Corresponding PD Request Message
		0	Sink_Capabilities_Extended (Extended Message)	Get_Sink_Cap_Extended
		1	Source_Capabilities_Extended (Extended Message)	Get_Source_Cap_Extended
		2	Battery_Capabilities (Extended Message)	Get_Battery_Cap
		3	Battery_Status (Data Message)	Get_Battery_Status
		4	Discover Identity Response – ACK, NAK or BUSY (Structured VDM)	Discover Identity Request
		5-63	Reserved	Reserved

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To Text:

42 *Response* 6
 Message Type

Value	PD Response Message	Corresponding PD Request Message
0	Sink_Capabilities_Extended (Extended Message)	Get_Sink_Cap_Extended
1	Source_Capabilities_Extended (Extended Message)	Get_Source_Cap_Extended
2	Battery_Capabilities (Extended Message)	Get_Battery_Cap
3	Battery_Status (Data Message)	Get_Battery_Status
4	Discover Identity Response – ACK, NAK or BUSY (Structured VDM)	Discover Identity Request
5	Revision (Data Message)	Get_Revision
6-63	Reserved	Reserved