USB TYPE-C AUTHENTICATION ENGINEERING CHANGE NOTICE FORM

Title: Correct PD Responder Unchunked Timing for tSinkTx
Applied to: USB Type-C Authentication Specification Revision 1.0

Brief description of the functional changes proposed:

Increases PD Responder Timing Values (Unchunked) to:
    30ms for tDigestSent
    30ms for tCertSent
    530ms for tChallengeAuthSent

Benefits as a result of the proposed changes:

Previous PD Responder timing values *tCertSent* (20 ms) and *tDigestSent* (20ms) do not allow for the *tSinkTx* wait period required by PD3.0 spec. Increase allows PD products to meet both Type-C Authentication and PD3.0 timing requirements

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

No impact

An analysis of the hardware implications:

No Impact

An analysis of the software implications:

No Impact

An analysis of the compliance testing implications:

No Impact

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Actual Change Requested

(a). Section 6.3.2, Table 6-2

From Text:

Table Error! No text of specified style in document.**-1: Timing Requirements for PD Authentication Responder**

Parameter	Timing Value		Description
	Unchunked	**Chunked**	
tDigestSent	20 ms	135 ms	Maximum time between receiving a GET_DIGESTS Authentication Request and sending an Authentication Response.
tCertSent	20 ms	135 ms	Maximum time between receiving a GET_CERTIFICATE Authentication Request and sending an Authentication Response.
tChallengeAuthSent	520 ms	635 ms	Maximum time between receiving a CHALLENGE Authentication Request and sending an Authentication Response.

To Text:

Table Error! No text of specified style in document.**-2: Timing Requirements for PD Authentication Responder**

Parameter	Timing Value		Description
	Unchunked	**Chunked**	
tDigestSent	30 ms	135 ms	Maximum time between receiving a GET_DIGESTS Authentication Request and sending an Authentication Response.
tCertSent	30 ms	135 ms	Maximum time between receiving a GET_CERTIFICATE Authentication Request and sending an Authentication Response.
tChallengeAuthSent	530 ms	635 ms	Maximum time between receiving a CHALLENGE Authentication Request and sending an Authentication Response.