## **USB TYPE-C AUTHENTICATION ENGINEERING CHANGE NOTICE FORM**

Title: Define USB Device Behavior for Default State and Invalid *wLength*Applied to: USB Type-C Authentication Specification Revision 1.0

Brief description of the functional changes:
Specifies that USB device responds with Request Error when gets Auth request in Default state. Also, adds that invalid $wLength$ is a Request Error.
Benefits as a result of the proposed changes:
Disallows undesirable/unsecure behavior when device is in Default state or gets request with invalid wLength
An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
Minimal
An analysis of the hardware implications:
An analysis of the software implications:
An analysis of the compliance testing implications:
Will require additional compliance testing.

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# **Actual Change**

### (a). Section 7.2.1

#### From Text:

The behavior of a USB Device is not specified if *wLength*, *wIndex*, or *wValue* for a particular Response type do not match the values set forth in this section. Otherwise, the following behavior is expected for the given USB Device state:

Default Not specified.

Address Request is valid and Device shall respond.

Configured Request is invalid and Device shall respond with a Request Error.

#### To Text:

A USB Device shall respond with a Request Error if *wLength* for a particular Response type does not match the values set forth in this section. The behavior of a USB Device is not specified if *wIndex* or *wValue* for a particular Response type do not match the values set forth in this section. Otherwise, the following behavior is expected for the given USB Device state:

Default Request is invalid and Device shall respond with a Request Error.

Address Request is valid and Device shall respond.

Configured Request is invalid and Device shall respond with a Request Error.

# (b). Section 7.2.2

#### From Text:

The behavior of a USB Device is not specified if *wLength*, *wIndex*, or *wValue* for a particular Response type do not match the values set forth in this section. Otherwise, the following behavior is expected for the given USB Device state:

Default Not specified.

Address Request is valid and Device shall respond.

Configured Request is invalid and Device shall respond with a Request Error.

#### To Text:

A USB Device shall respond with a Request Error if wLength for a particular Response type does not match the values set forth in this section. The behavior of a USB Device is not specified if wIndex or

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*wValue* for a particular Response type do not match the values set forth in this section. Otherwise, the following behavior is expected for the given USB Device state:

Default Request is invalid and Device shall respond with a Request Error.

Address Request is valid and Device shall respond.

Configured Request is invalid and Device shall respond with a Request Error.