

UCSI ENGINEERING CHANGE NOTIFICATION FORM

NOTICE: Any Company or Companies submitting a UCSI ECR proposal must be one of the following: a Promoter or Contributor of the UCSI 3.0 Specifications who have completed the UCSI addendum. If a group of Companies is submitting an ECR proposal, each company must be either a Promoter or Contributor of the UCSI 3.0 Specifications who have completed the USB Power Delivery addendum.

SPECIFICATION REVISIONS AND ADDENDA: At any point in time, there shall only be one current version of the UCSI specification, termed the production version. At the same time, there may also be proposed revisions to the specification's design which are not yet approved and shall be held confidential as deemed necessary by the UCSI 3.0 Promoters and within the Group of Working Committee(s).

PROCEDURES FOR SUBMITTING PROPOSALS: Both members of the USB Implementers Forum as a whole and members of the UCSI 3.0 Promoters may submit requests to revise the UCSI Specification. Such a request may be rejected or may result in a UCSI Engineering Change Notice (ECN), which is the official way USB specifications may be changed.

FORMAT OF PROPOSAL: The originator of a request to alter the UCSI Specification may do so by posting this to the USB Newark Software UCSI working group for review. Once the proposal has been reviewed by the working group it will be passed to the UCSI 3.0 Promoters for approval to publish.

RESUBMISSION AND APPEAL: The originator of a request that was not approved can redraft the original request. Rewritten proposal will be treated as a new proposal and will be evaluated using the procedures described above. The originator of a request that was not approved can also submit an appeal to the UCSI 3.0 Promoters. The appeal must be made in writing and addressed to the Secretary of the USB Implementers Forum.

ABOUT THE ENGINEERING CHANGE REQUEST FORM:

The Purpose of this Engineering Change Request Form is to expedite the review process of the proposal by providing explanations, background information, and examples of the proposed changes at a high level. This form serves as an executive summary to the actual proposal.

STEPS ON HOW TO SUBMIT A USB PD ENGINEERING CHANGE REQUEST:

- 1) Please fill out the Engineering Change Request Form on the following pages completely:
 - a) Detail the names and contact details for each of the ECR contributors
 - b) Update the ECR Title
 - c) Give a minimum of 2-3 sentences for each description on the form outlining the background to the ECR
- 2) For each section/table/figure to be updated:
 - a) Detail the section number, starting page and figure/table number to be updated as appropriate.
 - b) Detail existing text under "From Text"
 - c) Detail changed text under "To Text"
- 3) Save the file as "UCSI 3.x R 1" followed by the ECR Title as per step 1)b)
- 4) Post the ECR in the UCSI Documents section under "ECR | New ECRs".
 - a) This ECR will then be reviewed by the USB Newark Software Working Group.
 - b) Revisions to the ECR originating from the review should be submitted as document revision of the original ECR using "Add new document".

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Title: Update DisplayPort example in SET_NEW_CAM
Applied to: UCSI Specification Version 3.0 Revision 1

Brief description of the functional changes proposed:

Update the example in SET_NEW_CAM to state that the field should be used for setting DisplayPort configuration as defined by the DisplayPort alternate mode specification.

Benefits as a result of the proposed changes:

Currently the UCSI specification command states that when using SET_NEW_CAM to enter DisplayPort alternate mode, the *AmSpecific* field should be 1 byte in length and contain the configuration the OPM wants the connector to operate in.

This creates confusion because the *SOP DisplayPort Configurations* command from the DisplayPort Alternate Mode spec is 4-bytes. The UCSI spec does not say how 1-byte in the *AmSpecific* field maps to DisplayPort configure.

This change updates the example stating the *AmSpecific* field should match the configuration as defined in the DisplayPort alternate mode specification.

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

LPMs and PPMs which expect a 1-byte *AmSpecific* field for DisplayPort alternate mode would need to change how SET_NEW_CAM for DisplayPort alternate mode is handled. If the LPM/PPM only needs 1 byte from DisplayPort configuration it can mask the *AmSpecific* field to extract the 1-byte configuration.

An analysis of the hardware implications:

No hardware implication

An analysis of the software implications:

OPM will be required to the full DisplayPort configuration to enter DisplayPort alternate mode with SET_NEW_CAM.

An analysis of the compliance testing implications:

UCSI does not have a compliance test specification, no compliance implications.

Actual Change Requested

(a). Section 6.5.14, Page 53

From Text:

Table 6-33: SET_NEW_CAM Command

Offset (Bits)	Field	Size (Bits)	Description
...	...	...	...
32	<i>AMSpecific</i>	32	This field shall be set by the OPM as per the requirements of the Standard or Vendor specific Alternate Mode. For example, if the Alternate Mode being changed is the DP Alternate Mode, then this field shall be a byte in length and shall contain the configuration within the DP Alternate Mode that the OPM wants the connector to operate in.

To Text:

Table 6-33: SET_NEW_CAM Command

Offset (Bits)	Field	Size (Bits)	Description
...	...	...	...
32	<i>AMSpecific</i>	32	This field shall be set by the OPM as per the requirements of the Standard or Vendor specific Alternate Mode. For example, if the Alternate Mode being changed is the DP Alternate Mode, then this field shall contain the DisplayPort configuration the OPM wants the connector to operate in as defined by the DisplayPort alternate mode specification.