USB Type-C ENGINEERING CHANGE NOTICE

Title: CC characteristic impedance change
Applied to: USB Type-C Specification Release 1.0, August 11, 2014

Brief description of the functional changes:

Relax the upper limit of the characteristic impedance on the CC wire from 53 Ω to 93 Ω.

Benefits as a result of the changes:

Some cable constructions designed to meet the current spec limit may be fragile and the CC wire may break under stress. The relaxed limit permits more robust cable construction, especially for USB 2.0 versions.

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

None. Simulations have shown that, if anything, signal integrity is improved with the higher limit.

An analysis of the hardware implications:

Allows more robust cable construction designs.

An analysis of the software implications:

None.

An analysis of the compliance testing implications:

Cable test needs to be updated to apply the more relaxed limit.

USB Type-C ENGINEERING CHANGE NOTICE

Actual Change

(a). Section 3.7.3.3, Page 81

From Text:

CC and SBU wires shall have a characteristic impedance of 32 Ω to 53 Ω. These wires may be unshielded or shielded.

To Text:

The CC ~~and SBU~~ wire~~s~~ shall have a characteristic impedance of 32 Ω to 93~~53~~ Ω. The SBU wires shall have a characteristic impedance of 32 Ω to 53 Ω. ~~These~~ The CC and SBU wires may be unshielded or shielded.