ENGINEERING CHANGE NOTICE

Title: Rounded Chamfer
Applies to: USB 2.0 Specification

Summary of ECN
This ECN defines a rounded chamfer design option for the mini-B plug, which is recommended for all new and existing designs. The previous flat chamfer design is allowed, but not recommended.

Reasons for ECN
Consumers benefit from this ECN because rounded chamfer mini-B plugs result in longer lasting mini-B receptacles. Manufacturers also benefit. Connectors with rounded chamfer plugs can achieve more mating cycles than connectors with flat chamfer plugs. This allows the rounded chamfer connectors to be used in applications that may require more durability than the flat chamfer plugs can achieve.

Assessment of Impact on Current Specification and Current USB Products
This ECN modifies the Mini-B Connector ECN to the USB 2.0 Specification by replacing Figure 6-15 with the two attached figures. Figure 1 below shows both the rounded chamfer and flat chamfer plug options. The rounded chamfer option includes a note recommending it for new and existing designs. The flat chamfer option includes a note indicating that it is allowed, but not recommended for new and existing designs. Users of current USB products are not affected by the change from flat chamfer to rounded chamfer mini-B plugs. Both types of plugs mate the same with mini-B receptacles. The only difference is the increased life of the receptacle when using the rounded chamfer plugs.

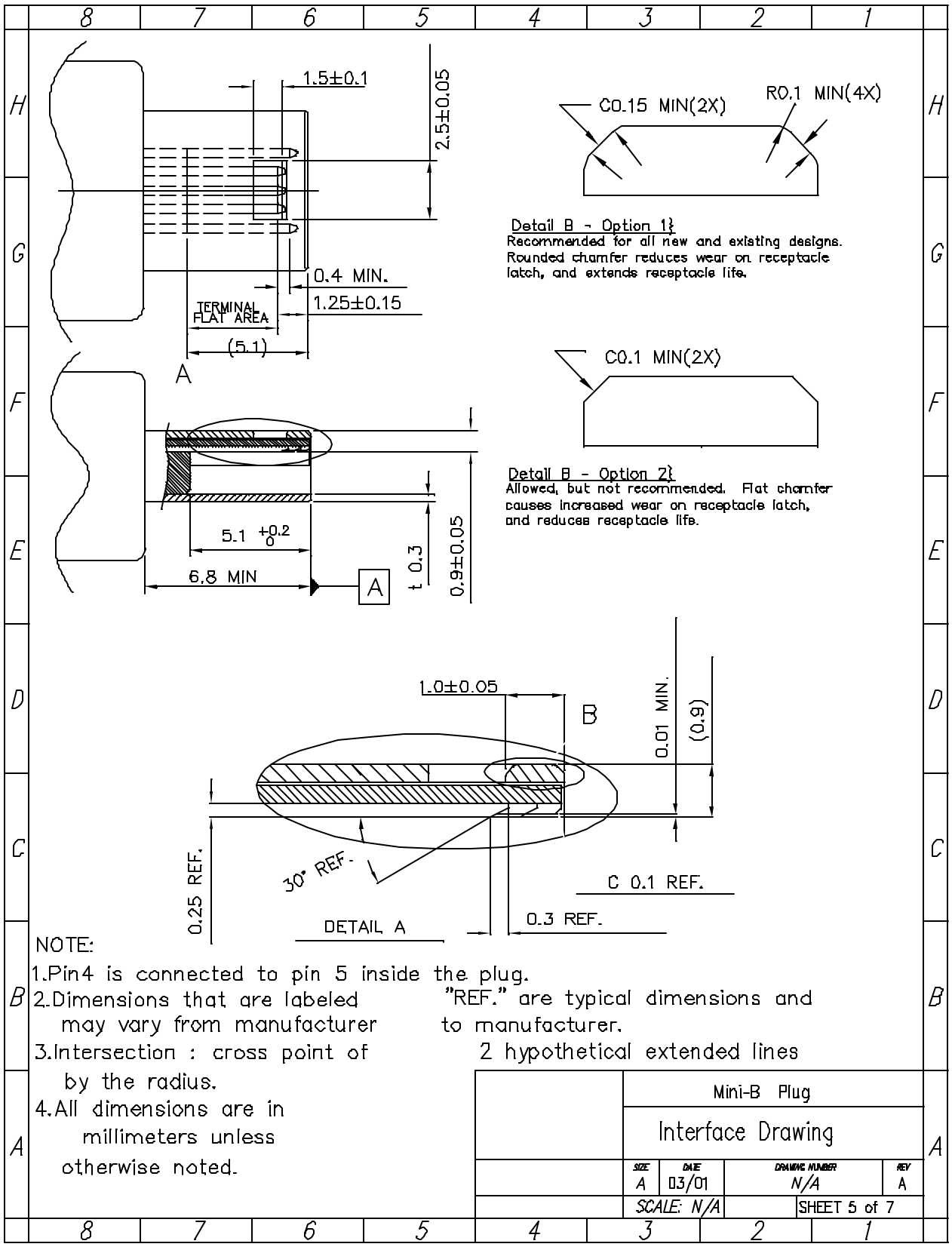
Hardware Implications
There are no issues. Receptacle life is increased with the use of rounded chamfer plugs.

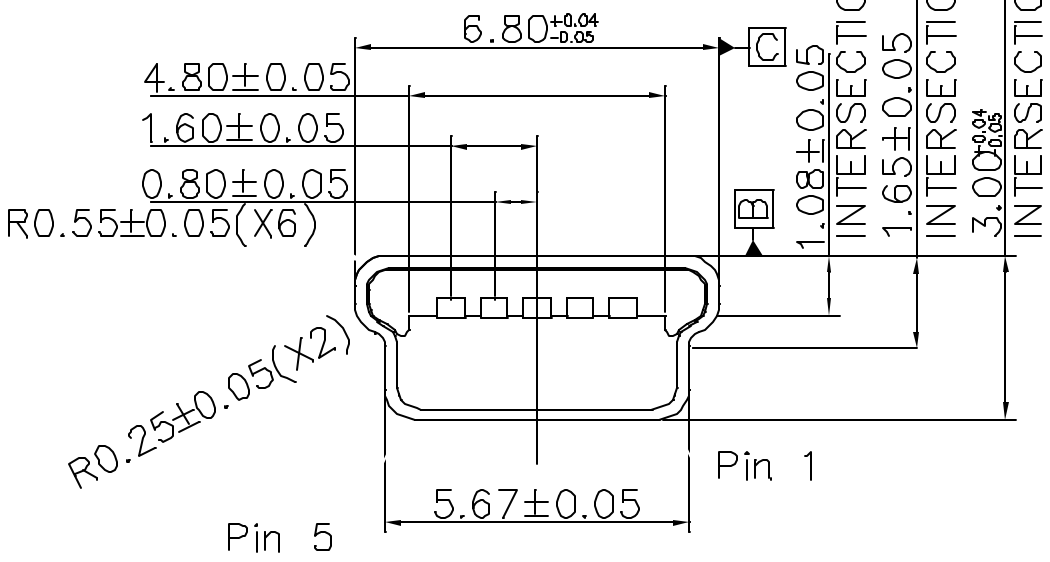
Software Implications
None

Compliance Testing Implications
There are no compliance testing issues. Device mfrs are still allowed to use flat chamfer plugs if they so desire. The OTG checklist does include a question that asks device mfrs if the plug has a flat chamfer or a round chamfer.

Specification Changes
This ECN modifies the Mini-B Connector ECN of the USB 2.0 Specification by replacing Figure 6-15 with the two attached figures.

FIGURE 1


1.5±0.1
2.5±0.05
0.4 MIN.
1.25±0.15
TERMINAL FLAT AREA
(5.1)
A
5.1 +0.2 0
6.8 MIN
A
t 0.3
0.9±0.05
C0.15 MIN(2X)
R0.1 MIN(4X)
Detail B - Option 1)
Recommended for all new and existing designs. Rounded chamfer reduces wear on receptacle latch, and extends receptacle life.
C0.1 MIN(2X)
Detail B - Option 2)
Allowed, but not recommended. Flat chamfer causes increased wear on receptacle latch, and reduces receptacle life.
1.0±0.05
B
0.01 MIN.
(0.9)
30° REF.
C 0.1 REF.
0.25 REF.
0.3 REF.
DETAIL A
NOTE:
1.Pin4 is connected to pin 5 inside the plug.
2.Dimensions that are labeled "REF." are typical dimensions and may vary from manufacturer to manufacturer.
3.Intersection : cross point of 2 hypothetical extended lines by the radius.
4.All dimensions are in millimeters unless otherwise noted.
Mini-B Plug
Interface Drawing
SIZE A
DATE 03/01
DRAWING NUMBER N/A
REV A
SCALE: N/A
SHEET 5 of 7



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	Mini-B Plug		
	Interface Drawing		
	SIZE: A	DATE: 03/01	DRAWING NUMBER: N/A	REV: A
	SCALE: N/A		SHEET 7 of 17