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## Silicon Errata

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This document details the known silicon anomalies for the USB2642. The USB2642 conforms functionally to the current Device Data Sheet, except for the anomalies described in this document.

The Functional Revision and Mask ROM ID values for the USB2642 are shown in [Table 1](#). The silicon issues are summarized in [Table 2](#).

**TABLE 1: AFFECTED SILICON/FIRMWARE REVISIONS**

Part Number	Functional Revision	Mask ROM ID
USB2642	H	728

**TABLE 2: SILICON ISSUE SUMMARY**

Module Number	Silicon Issue Summary	Functional Revision H
1.	<a href="#">bcdDevice field (DID) has invalid characters</a>	X
2.	<a href="#">Selective Suspend command is ignored by the hub</a>	X

## Silicon Errata Issues

### Module 1: bcdDevice field (DID) has invalid characters

#### Description of Issue:

According to the USB2.0 specification, the bcdDevice field is specified to be binary-coded-decimal, which means only decimal characters are allowed. The hexadecimal digits A-F are not allowed.

#### End User Impacts:

The presence of non-BCD characters will cause failures in some Command Verifier (CV) and Windows Hardware Certification tests, such as:

- USB (USBDEX) Verifier Test
- USB Device Connection S3 + S4
- USB Driver Level Re-Enumeration Test
- USB Enumeration Stress
- USB Serial Number

No end user functional impact.

#### Solution:

This will not be addressed in a future version of the device. This bcdDevice field can be changed through the configuration options by programming the EEPROM via the SMBus or I<sup>2</sup>C interface. Also, a Microsoft Contingency number 323 can be used to waive the five Windows Hardware Certification tests mentioned above.

### Module 2: Selective Suspend command is ignored by the hub

#### Description of Issue:

If a SET\_FEATURE (PORT\_SUSPEND) command is sent right after the SOF command (microframe 0), the hub will not disabled the port.

#### End User Impacts:

The port will not suspend when a command is sent by the host. This will cause more current draw than if the port was suspended (~10mA).

#### Solution:

This will not be addressed in a future version of the device. It is recommended to use the Global Suspend function to put the entire hub into suspend to conserve power.

## APPENDIX A: DOCUMENT REVISION HISTORY

Revision Level & Date	Section/Figure/Entry	Correction
DS80000643A (02-19-15)	Initial release	

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