

Device Errata Summary

This document lists the known errata for the ZA and ZB revisions of the IDT89HPEB383 PCI Express Bridge and supplements information found in the IDT89HPEB383 Device User Manual. Silicon revision can be identified visually in the marking on top of the device and programmatically through the Revision ID register in the PCI configuration space.

For technical support, please visit the Technical Support Web Portal (preferred) or send emails to ssdhelp@idt.com (only if no web access available).

Severity Rating

Severity rating indicates the potential impact on systems. 1 is the highest severity and indicates the potential to adversely affect system functionality or performance, including fatal errors. 2 indicates the potential to affect system performance in a non-fatal manner. 3 indicates an anomaly in design or operation of the chip that is not expected to affect system performance.

Errata Item	Description	Severity Rating	Work around?
1	Downstream memory accesses may not complete successfully when received immediately after a LOCK cycle	2	Yes

Device Errata

Item #1: Downstream memory accesses may not complete successfully when received immediately after a LOCK cycle

Description

When the device receives the UNLOCK message at the end of a LOCK cycle (Read-Modify-Write), it does not release the lock immediately; instead, it retains the lock until the last lock transaction completes on the PCI bus. Downstream memory accesses do not complete successfully during this period of time.

Impact

Downstream memory read requests are responded to with Unsupported Requests (UR). Downstream memory write requests are accepted on the PCIe interface but do not complete on the PCI bus.

Workarounds

Do not use LOCK cycles. If LOCK cycles must be used, ensure that the data of the last LOCK write are validated after each UNLOCK message is sent. This could be accomplished by issuing a read to the same address as the last LOCK write and making sure that the returned data are the same as expected.

Severity Rating

2

Revision History

Revision Date	Description of Change
March 19, 2018	Updated to latest documentation template; no technical changes.
August 18, 2010	Initial release.



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