AMD Geode™ SC3200 Processor Silicon Revision D3 to D3.3 Differences



1.0 Scope

The purpose of this document is to describe the differences between silicon revision D3 and D3.3 of the AMD Geode™ SC3200 processor. Hence, providing the system designer with the necessary information to migrate from revision D3 to D3.3. Each difference notes if there are any hardware or software implications specifically related to upgrading a revision D3 designed motherboard to revision D3.3 silicon.

The D3.3 silicon is only available in the BGU481 (481 terminal Ball Grid Array Cavity Up) Pb-free (lead-free) package (aka TEPBGA package).

2.0 Discussion

The following describes the differences between silicon revision D3 and D3.3 of the Geode SC3200 processor.

2.1 Changes in Revision D3.3

2.1.1 Fixed Issue

The following issue from the AMD Geode™ SC3200 Processor Silicon Revision D3 Specification Update document has been fixed.

#2.20 "Specific alignment of asynchronous events causes hang"

The hazard that caused the hang no longer exists.

- · Hardware implications: None.
- · Software implications: None.

2.1.2 Pb-Free Package Improvement

The Pb-free package requires a higher soldering temperature. A small change was made on the top metal layer to reduce the increased stress on the die due to the increased soldering temperature. This change is not a functional change.

- · Hardware implications: None.
- · Software implications: None.

2.1.3 Device Revision Registers

None of the user device revision registers have been updated.

- Hardware implications: None. The fixed issue has no operational side effects.
- Software implications: None. The fixed issue has no operational side effects. Software that runs on revision D3 silicon will run equivalently on revision D3.3 silicon.

2.2 New Issues

There are currently no new issues in revision D3.3 silicon.

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