AMD Opteron™ Procesor Models x52 and x54 Production Notice:
Procesor Frequency Margin Test Escape

AMD has identified, and subsequently corrected, a test escape that occurred in our post-manufacturing testing process for a limited number of single-core AMD Opteron™ processor models x52 (2.6 GHz) and x54 (2.8 GHz) as shown in the following table.

Revision	Max P-State	Uni-Processor	Dual Processor	Multi-Processor	No. Cores	DRAM	Package
E4	2600 MHz	152	252	852	Single	DDR1	940 Pin
E4	2800 MHz	N/A	254	854	Single	DDR1	940 Pin
E4	2600 MHz	152	N/A	N/A	Single	DDR1	939 Pin
E4	2800 MHz	154	N/A	N/A	Single	DDR1	939 Pin

No AMD Opteron products that are currently being shipped are affected, and this test escape has had no impact on other AMD processors.

The affected processors may produce inconsistent results in the presence of three specific conditions occurring simultaneously:

- The execution of floating point-intensive code sequences (this has been observed only in non-production, synthetic test environments)
- Elevated processor temperatures
- Elevated ambient temperatures

After thorough testing, this condition has not been observed on AMD Opteron processor-based systems using the processors listed in the table while running commercially available applications. The tested applications include Web servers, application servers, transaction processing servers, database servers, and file print servers.

A rigorous software verification tool for identifying the AMD Opteron processors listed in the table that may be affected under these specific conditions is available to AMD OEM partners. The verification tool identifies all parts that are affected, including some parts that are not affected, to adequately compensate for varying environmental operating conditions and ensure that all affected parts are identified.

AMD is working with OEMs and system builders to immediately identify and contact customers who may have a single core AMD Opteron processor(s) listed in the table above. AMD will work with those customers to properly identify any parts that may be affected and replace them at no charge.

If you are a customer that has received an AMD Opteron processor listed in the table, please contact your system provider. Visit www.amd.com/opteron/productionnotice for additional support information or e-mail AMD technical support at prod.notice@amd.com.

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