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# Background

## Revision History

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<th>Description</th>
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<tr>
<td>001</td>
<td>Initial release D2 silicon</td>
<td>January 2012</td>
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Background

This document provides power numbers on the Intel® Core™ i7 Processor 2715QE while running real life applications. This document is complementary to the specs published in the datasheet. The application power guidelines should be used for reference purpose only. These power numbers provided in this document are not design points and should not be used as one.

The specifications contained in this document complement the document in the Related Documents table.

Information types defined in the Nomenclature section of this document are consolidated into this update document and are no longer published in other documents. Additional information about Applications Power Guidelines is provided under the Reference Documents table.

Related Documents

<table>
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Values presented represent a typical or average processor SKU and do not guarantee a customer will achieve these exact values for each silicon sample. These values are not intended to replace TDP, nor to be used for reliability assessments. Individual test results may vary.

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## Nomenclature

<table>
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<th>Abbreviation</th>
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<tr>
<td>APG</td>
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<tr>
<td>TDP</td>
<td>Thermal Design Power</td>
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<td>SKU</td>
<td>Stock Kitting Unit</td>
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The Application Power Guidelines (APG) numbers listed in this document are intended to reflect the nominal use conditions. Several factors like temperature, platform configuration and other variables can influence the numbers. Specific information about the platform, benchmarks, temperatures, etc are provided in this document to enable a repeatable power measurement. Since Application Power Guidelines will be provided on limited applications and SKUs and it is expected that the end user can understand these numbers and apply it in their own use case.

The following table indicates the Application Power Guidelines for various embedded applications for Intel® Core™ i7 Processor 2715QE:
Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

**APG Configuration:**

The results presented in this document are collected on a single sample. The data has not been post processed to account for part to part variation.

**Platform:** Intel® Core™ i7 Processor 2715QE with Intel® QM67 Express Chipset

**Bios Rev:** SNB86C.0998

**Memory:** 2X 1GB DDR3 1066MHz

**OS:** Windows 7 Pro x86 and Linux Ubuntu 11.04 x 64bit

**Windows Benchmarks:** TAT (75% IA and 100% Graphics), Video 720P (VLC Player: Elephants Dream 1280x720 Divx), 3Dmark 06

**Linux Benchmarks:** SPEC CPU2006 (CINT.400, CFP.416)

A reference heat sink with fan was used while running these benchmarks.

Application Power Guidelines testing was conducted by Intel Corporation.

For more information got to http://www.intel.com/performace

**Additional Information:**

- In case of conflict the Datasheet supersedes this document.
- Temperature values are mean temperatures measured through the duration of the test.
- APG configuration is provided for repeatability of the test.
- SPEC CPU2006 is one of the most widely used industry standard benchmark for evaluating IA CPU compute capabilities. The CINT benchmark used in this test is 400.Perlbench. The CFP benchmark used in this test is 416.gamess.
- Power Thermal Utility tool (PTU) or Thermal Analysis tool (TAT) are developed by Intel to generate TDP like workloads on a system.
- 3DMark 06 is a 3D game performance benchmark.
- VLC Player is an open source media player.
- Elephants Dream is an open movie, made entirely with open source graphics software.
- The Idle Power reported above is while displaying the Linux Desktop screen.