

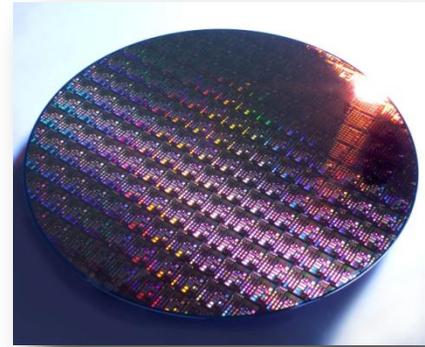


**REDUCE
THE
POWER**

Introducing 1.6V Core Operating Voltage

**25 Percent Reduction in Power While
Maintaining Operating Speed**

Honeywell has created a new HX5000 library delivering reduced power while maintaining speed performance. The 1.6V benefits apply across the library including the standard cells, SRAMs, PLLs and SERDES.



How is this achieved?

Start with the historical manufacturing data from the mature 1.8V library as the baseline and create new models with tighter manufacturing tolerances. All library elements were re-characterized at 1.6V and the new tighter models. These changes enabled the reduction in power without sacrificing performance. The SOI CMOS technology, process, and development tool flow all remain the same.

Verification

Static timing and power simulations were performed on sections of several existing designs and test circuits to verify the performance. Although it is dependent on each individual design, the circuits evaluated

averaged more than 25 percent power reduction and demonstrated no appreciable timing degradation.

Application Space

With the high speed data processing required in today's space electronics systems, design complexity is often constrained more by power consumption than by gate density in an ASIC. The power savings of the 1.6V library can be utilized for nearly all designs targeted for the HX5000 ASIC platform.

Contact Honeywell for more details.

www.honeywellmicroelectronics.com

Disclaimer

This document gives only a general description of the capabilities and shall not form any part of any contract. Honeywell reserves the right to make changes of any sort without notice to any and all products, technology and testing identified herein. You are advised to consult Honeywell or an authorized sales representative to verify that the information in this data sheet is current before ordering this product. Absent express contract terms to the contrary, Honeywell does not assume any liability of any sort arising out of the application or use of any product or circuit described herein; nor does it convey any license or other intellectual property rights of Honeywell or of third parties.

Honeywell International Inc.
12001 Highway 55
Plymouth, MN 55441
1-800-323-8295
www.honeywell.com
www.honeywellmicroelectronics.com

November 2014
©2014 Honeywell International Inc.

Honeywell