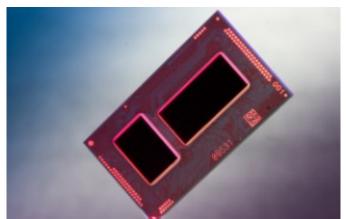
Intel Details Next Gen 14nm Broadwell

Written by Marco Attard 14 August 2014

Intel reveals further details on its 14nm "Broadwell" microarchitecture and manufacturing process, technologies the company claims will serve applications ranging from mobile devices to cloud infrastructure and the internet of things.



According to the company the 14nm process cuts power consumptions by 25% in comparison to the 22nm Haswell. It also doubles the improvement in performance-per-watt versus Haswell, with a 2nd generation Fully Integrated Voltage Regulator (FIVR) providing better efficiency at lower voltages.

"Intel's 14nm technology uses 2nd-generation Tri-gate transistors to deliver industry-leading performance, power, density and cost per transistor," Intel manufacturing group senior fellow Mark Bohr says. "Intel's investments and commitment to Moore's law is at the heart of what our teams have been able to accomplish with this new process."

The first Broadwell product to hit the market is the Core M, a 14nm chip for notebook and tablet use. It features a board area 25% smaller than Haswell, as well as enhanced turbo boost and power reduction technologies allowing for fanless designs both slimmer and more powerful.

Initial Core M-based products should be available from the holiday season before broader OEM availability during H1 2015.

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