Written by Marco Attard 08 May 2013

Intel unveils its latest take on low-power, high-performance CPUs-- Silvermont, an x86-based architecture using the 22nm Tri-Gate manufacturing process, designed for applications ranging from smartphones to data centres.



"Silvermont is a leap forward and an entirely new technology foundation for the future that will address a broad range of products and market segments." Intel says. "Early sampling of our 22nm SoCs, including "Bay Trail" and "Avoton," is already garnering positive feedback from our customers."

"Bay Trail" quad-core SoCs aimed for tablet and entry-level PC use will be the first products on the market featuring the architecture, followed by dual-core "Merrifield" smartphone SoCs. By H2 2013 Intel should also release the microserver-targeted "Avoton" and the "Rangeley" network/communications infrastructure chips, as well as an unnamed SoC optimised for in-vehicle applications.

Intel claims Silvermont technology improves both power and performance while providing "unique" capabilities such as a vertically integrated semiconductor design, a low-power C state (wakes up faster and flushes cache in different ways) and updated Intel Burst Technology.

Hardware partners will also get more options, such as built-in security features (SecureKey and McAfee DeepSAFE), VT-x2 virtualisation technology and software debugging tools.

Intel Goes for Mobile with Silvermont

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Will Intel manage to beat ARM in the low-power SoC stakes? The company certainly hopes so, but we will know for sure once the first Silvermont products hit the market in time for the Q4 2013 holiday season.

Go Intel Launches Silvermont Microarchitecture