



Samsung Announces Mass Production of 2nd Generation 14-Nanometer FinFET Logic Process Technology

Samsung's current 14-nanometer process brings unparalleled performance and power efficiency improvements

Seoul, Korea – January 14, 2016 – Samsung Electronics Co. Ltd., a world leader in advanced semiconductor technology, today announced that it has begun mass production of advanced logic chips utilizing its 14nm LPP(Low-Power Plus) process, the 2nd generation of the company's 14nm FinFET process technology.

In leading mass production of advanced FinFET logic process, Samsung announced in Q1 of 2015 the launch of the Exynos 7 Octa processor built on the industry's first 14nm LPE (Low-Power Early) process. With the new 14nm LPP process, Samsung continues to demonstrate its process technology leadership, and unparalleled performance and power efficiency for its Exynos 8 Octa processor and its many foundry customers including Qualcomm Technologies, Inc.. The Qualcomm® Snapdragon™ 820 processor uses Samsung's new 14nm LPP process and is expected to be in devices in the first half of this year.

"We are pleased to start production of our industry-leading, 2nd generation 14nm FinFET process technology that delivers the highest level of performance and power efficiency" said Charlie Bae, Executive Vice President of Sales & Marketing, System LSI Business, Samsung Electronics. "Samsung will continue to offer derivative processes of its advanced 14nm FinFET technology to maintain our technology leadership."

Incorporating three-dimensional (3D) FinFET structure on transistors enables significant performance boost and low power consumption. Samsung's new 14nm LPP process delivers up to 15 percent higher speed and 15 percent less power consumption over the previous 14nm LPE process through improvements in transistor structure and process optimization. In addition, use of fully-depleted FinFET transistors brings enhanced manufacturing capabilities to overcome scaling limitations.

With its superb characteristics, 14nm FinFET process is considered to be one of the most optimized solutions for mobile and IoT applications and is expected to meet growing market demand for a wide range of high performance and power efficient applications from network to automotive.

About Samsung Electronics Co., Ltd.

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