Samsung and Xilinx Team Up for Worldwide 5G Commercial Deployments

SAN JOSE, Calif. - Xilinx, Inc. (NASDAQ: XLNX), the leader in adaptive and intelligent computing, today announced that the Xilinx® Versal™ adaptive compute acceleration platform (ACAP) will be utilized by Samsung Electronics Co., Ltd., for worldwide 5G commercial deployments. Xilinx Versal ACAPs provide a universal, flexible and scalable platform that can address multiple operator requirements across multiple geographies.

"Samsung has been working closely with Xilinx, paving the way for enhancing our 5G technical leadership and opening up a new era in 5G," said Jaeho Jeon, executive vice president and head of R&D, Networks business, Samsung Electronics. "Taking a step further by applying Xilinx's new advanced platform to our solutions, we expect to increase 5G performance and accelerate our leadership position in the global market."

Versal ACAP – a highly-integrated, multicore, heterogeneous compute platform – operates at the heart of 5G to perform the complex, real-time signal processing, including the sophisticated beamforming techniques used to increase network capacity. With 5G infrastructure requirements and industry specifications still evolving, there is a need for the adaptive compute Xilinx is known for.

5G requires beamforming, which allows multiple data streams to be transmitted simultaneously to multiple users using the same spectrum. This is what enables the dramatic increase in 5G network capacity. Beamforming technology, however, requires significant compute density and advanced high-speed connectivity – on-chip and off-chip – to meet 5G's low-latency requirements. Adding to this, different system functional partition requirements and algorithm implementations lead to a wide range of processing performance and compute precision. It is extremely challenging for traditional FPGAs to optimally address this requirement while meeting thermal and system footprint constraints.

Versal ACAPs offer exceptional compute density at low power consumption to perform the real-time, low-latency signal processing demanded by beamforming algorithms. The AI Engines, which are part of the Versal AI Core series, are comprised of a tiled array of vector processors, making them ideal for implementing the required mathematical functions offering high compute density, advanced connectivity, as well as the ability to be reprogrammed and reconfigured even after deployment.

"Samsung is a trailblazer when it comes to 5G innovation and we are excited to play an essential role in its 5G commercial deployments," said Liam Madden, executive vice president and general manager, Wired and Wireless Group, Xilinx. "Versal ACAPs will provide Samsung with the superior signal processing performance and adaptability needed to deliver an exceptional 5G experience to its customers now and into the future."

The first Versal ACAP devices have been shipping to early access customers and will be generally available in the Q4 2020 timeframe.
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About Xilinx
Xilinx develops highly flexible and adaptive processing platforms that enable rapid innovation across a variety of technologies – from the endpoint, to the edge, to the cloud. Xilinx is the inventor of the FPGA, hardware programmable SoCs, and the ACAP, designed to deliver the most dynamic processor technology in the industry and enable the adaptable, intelligent, and connected world of the future. For more information, visit www.xilinx.com.

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