



Skyworks and Xilinx Enable 5G Across Newly Available C-band Spectrum

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Companies Demonstrate 280 MHz C-band Solution For 5G Infrastructure

IRVINE, Calif.--(BUSINESS WIRE)--Jun. 23, 2021-- Skyworks Solutions, Inc. (Nasdaq: SWKS), an innovator of high-performance analog semiconductors connecting people, places and things, together with Xilinx, Inc. (Nasdaq: XLNX), recently demonstrated compliance with 3GPP linearity and bandwidth requirements for C-band signals that are critical for enabling next-generation 5G infrastructure. The 280 MHz instantaneous bandwidth (IBW) solution that was demonstrated by the companies uses a Xilinx Zynq RFSoc Gen 3 and a Skyworks SKY66523-11 high-efficiency power amplifier (PA). The demo is available via video by visiting the [Xilinx Xclusive Blog](#).

The SKY66523-11 wide instantaneous bandwidth high-efficiency PA has an operational frequency range of 3550 to 4200 MHz and is ideal for use as both a C-band 5G NR small cell PA and as a driver amplifier for Massive MIMO and macro base stations. U.S. C-band spectrum refers to mid-band frequencies in the range of 3.7 GHz to 3.98 GHz, which are optimal for 5G because they provide the right balance of geographic coverage, capacity and speed. At nearly \$81 billion, the recent U.S. Federal Communication Commission (FCC) auction of 280 MHz C-band spectrum was the highest-value spectrum sale in history.

The first portion of the C-band spectrum, referred to as "A-block," is expected to be available by the end of this year. In anticipation of deploying as soon as the A-block spectrum becomes available, OEMs are already in the process of designing C-band systems. B-block and C-block spectrums are expected to be available by the end of 2023.

The demo incorporating the SKY66523-11 PA and the Xilinx Adaptable SoC shows multiple scenarios covering the full 280 MHz C-band spectrum with an occupied bandwidth (OBW) of up to 200 MHz, which is the maximum bandwidth won by any operator during the recent auction. In all scenarios, the combined Skyworks/Xilinx solution achieved Adjacent Channel Leakage Ratio (ACLR) compliance, a critical requirement of the 5G specification, making this combination ready for immediate A-block deployment and future B-block and C-block deployments.

"The majority of early 5G deployments are leveraging Xilinx technology for the radio. Along with our silicon platforms, Xilinx is providing industry leading signal processing IP that is enabling both wider bandwidths required by C-band while also maintaining energy efficiency in the radio," said Brendan Farley, vice president of wireless engineering at Xilinx. "This demonstration, together with Skyworks PA technology, shows how our Adaptable Digital RF IP can quickly scale to address new and emerging radio requirements."

"Our demo with Xilinx highlights the readiness and maturity of this 5G solution and with the C-band auction concluded and winners announced, the next phase is for deployments as rapidly as possible," said Yusuf Jamal, senior vice president and general manager of diversified analog and AI solutions at Skyworks. "The C-band is a unique and important piece of the 5G landscape, and Skyworks has long been investing in and preparing to deliver innovative technologies that address this new spectrum."

The Xilinx Zynq RFSoc Gen 3 is in full production and contains the direct RF transceivers along with the adaptable CFR (Crest Factor Reduction) and DPD (Digital Pre-Distortion) IP. The SKY66523-11 is part of a 5 x 5 mm pin-to-pin compatible family of PAs supporting major 3GPP bands and is sampling now. To learn more about the SKY66523-11, please visit: <https://www.skyworksinc.com/en/Products/Amplifiers/SKY66523-11>.

About Skyworks

Skyworks Solutions, Inc. is empowering the wireless networking revolution. Our highly innovative analog semiconductors are connecting people, places and things spanning a number of new and previously unimagined applications within the aerospace, automotive, broadband, cellular infrastructure, connected home, industrial, medical, military, smartphone, tablet and wearable markets.

Skyworks is a global company with engineering, marketing, operations, sales and support facilities located throughout Asia, Europe and North America and is a member of the S&P 500® and Nasdaq-100® market indices (Nasdaq: SWKS). For more information, please visit Skyworks' website at: www.skyworksinc.com.

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