



Samsung Announces Commercial Readiness of its 5G RFIC

The announcement paves the way for 5G commercial product releases in early 2018

Seoul, Korea – February 19, 2017 – Samsung Electronics announced the commercial readiness of its 5G RF Integrated Circuit (RFIC) – a key component in the production and commercialization of next-generation base station and other radio access products.

“Samsung has been hard at work for several years on the various foundation technologies that go into the 5G RFIC,” said Paul Kyungwhoon Cheun, Executive Vice President and Head of Next Generation Communications Business Team at Samsung Electronics. “We’re excited to finally bring all the pieces together and announce this important milestone on the path to commercial 5G. This will have a big role to play in the upcoming connectivity revolution.”

Samsung announced the new RFIC at a 5G mobile technologies workshop held at the Korean Institute of Communications and Information Sciences. The company presented details on the development and strengths of the chip and outlined its role on the roadmap to commercial 5G products.

The RFIC itself is designed to greatly strengthen the overall performance of 5G access units (the 5G ‘base station’) and Samsung has placed a strong emphasis on designing for low cost, high efficiency and compact form factors. Each of these criteria is expected to play a critical role in delivering on the promises of 5G.

The RFIC incorporates a high-gain/high-efficiency power amplifier, [a technology Samsung announced in June last year](#). This means the chip can provide extended coverage in the millimeter wave (mmWave) band, overcoming one of the primary challenges of high frequency spectrum. At the same time, Samsung’s RFIC is capable of greatly improved transmission and reception performance. The RFIC’s ability to reduce phase noise in its operating band enables clearer radio signals even in noisy environments where signal quality loss would otherwise disrupt high-speed communications. Completing the chip is a compact chain of 16 low loss antennae, which further enhance overall efficiency and performance.

Samsung’s current RFIC is slated for use in the 28GHz mmWave spectrum band that has very quickly become a primary target for early 5G deployments in markets such as the U.S., Korea and Japan. With development on the chip complete, Samsung is now accelerating its plans for 5G commercial product readiness, with the first RFIC-equipped solutions expected to be announced early next year.

Expect [more key announcements](#) from Samsung at Mobile World Congress, Feb. 27 – March 2.

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