MediaTek’s first 5G-enabled chipset will save battery life and space

MediaTek has unveiled the world’s first mobile chipset with an integrated 5G modem. The 7nm chipset combines the company’s Helio M70 5G modem with ARM’s recently announced Cortex-A77 and Mali-G77, resulting in an integrated chip that should save on physical space inside the phone and battery life. The chip’s modem has a theoretical maximum download speed of 4.7 Gbps and upload speed of 2.5 Gbps, MediaTek says.

Although it’s not as fast as Qualcomm’s second generation X55 modem, which offers peak download speeds of up to 7 Gbps, MediaTek’s approach has the advantage of combining everything into a single chip. By comparison, Qualcomm’s modem is separate to the company’s SoCs, meaning it occupies more space and may draw extra power (depending on the two companies’ implementation of the technology).

Sub-6GHz but no mmWave

From a technology perspective, MediaTek’s chip isn’t quite as advanced as Qualcomm’s latest modem, since it doesn’t appear to support mmWave along with sub-6Ghz. That shouldn’t be a problem for MediaTek’s primary markets in the short term, however, as *Anandtech* notes that the US is the only major region that’s currently rolling out mmWave. Otherwise the chip supports both standalone and non-standalone 5G, and is also backwards compatible with 2G to 4G networks.

After Intel’s exit from the 5G phone business and the US’s blacklisting of Huawei, the amount of competition in the 5G hardware business has reduced significantly, so it’s good to

see that MediaTek is still offering Qualcomm some competition in the 5G space. MediaTek says the new chip should start shipping to device partners later this year, with the first releases expected in early 2020.

https://www.theverge.com/circuitbreaker/2019/5/30/18645415/mediatek-integrated-5g-modem-specs-download-upload-speeds-sub-6ghz-helio-m70-arm-cortex-a77