

# Broadcom enters 5G pearly gates with new chip BCM4335

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(Phys.org) -- Broadcom has announced a new chip for smartphones, tablets, and other small form factor devices designed for the fastest WiFi standard. This is its BCM4335, which the company promotes as the “industry’s first” 5G WiFi Combo Chip for mobile devices like smartphones tablets and ultrabooks, for best connectivity to superfast 802.11ac networks. The Tuesday announcement said that the BCM4335 includes a complete 5G WiFi system - along with Bluetooth 4.0 and FM radio - on a single, integrated chip.

The phrase “5G [WiFi](#)” refers to the fifth generation of Wi-Fi based on the IEEE 802.11ac standard, promising speed, range and power saving. [Broadcom](#) stresses that it is a “major evolutionary step” from the existing 802.11a/b/g/n networks. With much faster speeds, consumers can download web content from a mobile device, and synch large files such as videos in a fraction of the time it would take on a similar 802.11n device, says a company press release. 5G WiFi will improve the wireless range in the home, for HD-quality video from more devices, in more places, simultaneously.

BCM4335 integrates a complete 5G WiFi system with Bluetooth 4.0, FM radio and software on a single [chip](#) using the 40nm CMOS process. The company says its platform-agnostic design ensures chip can be added to any smartphone or tablet. Broadcom is also referring to the BCM4335 as the newest version of “wireless coexistence technology.” Handset makers, according to the company, will be able to use the technology on 4G LTE cellular platforms to minimize the possibility of

radio interference between Wi-Fi, Bluetooth and LTE, which operate in adjacent radio frequencies. The combo chip can address unique interference challenges in systems with both 4G LTE cellular radios and wireless connectivity.

Broadcom's "Global Coexistence Interface" supports the Bluetooth Special Interest Group's LTE coexistence scheme and can be applied to future Broadcom LTE platforms, as well as 4G cellular platforms from other vendors.

BCM4335 chips are available as sample chips but production is to start early next year 2013. Smartphones and tablets powered by the new chip will be on the shelves in the first quarter.

According to AnandTech, since BCM4335 is also manufactured on a 40nm process, as BCM4334, power consumption should be relatively similar, and likely better with 802.11ac.

Other features include SDIO 3.0, PCIe and HSIC; PHY rates of 433 Mb/s to boost wireless throughput; beamforming, Low-Density Parity Check (LDPC) code and Space-Time Block Code (STBC) support for better coverage and connectivity.

Broadcom's note-taking on connectivity demands in general note that most network video is now viewed on devices other than PCs and by 2016, 3 trillion minutes of video content will cross the network every month. Mobile data traffic worldwide will grow 18-fold from 2011 to 2016.

**More information:**

[www.broadcom.com/press/release.php?id=s694864](http://www.broadcom.com/press/release.php?id=s694864)

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