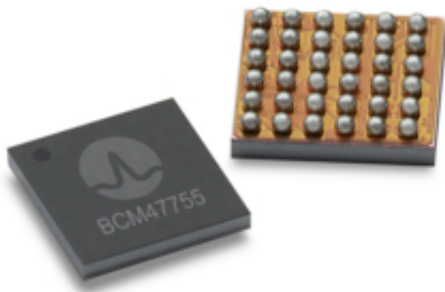


Broadcom announces development of more precise GPS chip

September 25 2017, by Bob Yirka



The Broadcom BCM47755

(Tech Xplore)—Broadcom Limited, a wholly owned subsidiary of Avago Technologies, has [announced](#) the development of a new GPS chip, the BCM47755, which the company claims is far more accurate than the conventional chips now used in smartphones. The new chip, the company claims, offers accuracy to 30 centimeters, a marked improvement over the current 5-meter standard. They have also announced that the chip will be included with some new smartphones as early as next year.

Phone makers have known for some time that it would soon be possible

to dramatically improve the accuracy of the GPS chips in their phones—some devices such as those used by oil companies already have access to satellites and earthbound technology that is far more precise than that found in smartphones. The holdup has been the development and deployment of satellites capable of sending a more advanced type of signal. Most smartphones now listen for an L1 signal broadcast from a [satellite](#)—it offers data regarding the location of the satellite sending the signal, a time stamp and a signature that identifies the satellite itself. But new satellites can send an L5 signal, which offers more precise information. It is only now that enough of these new satellites have been put into orbit over the US that they can be accessed across the country.

The new chip still uses the L1 signal, but it also uses the L5 signal for refinement. In its press brief, Broadcom claims the L5 signal will work better for everyone, but particularly for those who live in cities, because the L5 signal is less sensitive to the bouncing of signals. The company also claims that the new chips use just half the power of current chips, reducing the drain that consumers have come to accept as normal when asking Google Maps or Siri for directions. This improvement, the company explains, results from a newly developed radio architecture, a power-saving dual-core sensor hub and a new manufacturing process.

The [company](#) did not say if the new [chip](#) will cost more than those now in use or which [new smartphones](#) it will appear in next year.

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