

# Marvell's wireless chip set to raise connection fever

June 5 2012, by Nancy Owano

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(Phys.org) -- Marvell is rolling out a new wireless chip that is an all in one wireless connectivity package. The Avastar 88W8897 combines 802.11ac, Near Field Communication (NFC), and Bluetooth in one die. This is described by the Taipei -based company as a low-power 802.11ac combination radio chip. The company says the Avastar newcomer is being introduced to improve the "mobile computing" experience. The company is banking on a digital future where the user will use a mobile device to connect to everything, from retail booths, to wall charts, to sidewalk maps.

The scenario involves people seamlessly moving and viewing content among various devices, anytime and anywhere.

The Avastar 88W8897 is announced as the first high-performance

MIMO (used on products that feature multiple antennas) Wi-Fi + Bluetooth + FM combination radio with advanced power management, for “next-generation” handhelds. MIMO stands for Multiple-Input Multiple Output radio architectures, and they have already been available in Wi-Fi 802.11n products for some years. The newer-generation Mobile MIMO adds a second transceiver in a true MIMO configuration, according to a white paper on Mobile MIMO. With two antennas that can be routed away from where the tablet is likely to be placed or handled, a MIMO Wi-Fi radio offers more link robustness and diminishes the likelihood of signal obstruction, according to the paper. Marvell says its new Avastar is an 802.11n 2x2 dual-band system-on-chip (SoC) offering Wi-Fi data rates up to 300Mbps.

Broadcom has 802.11ac chips, for powering routers and other clients. The 802.11ac chip from Marvell is to be embedded in complete-hardware mobile devices, including tablets and ultra-light notebooks. End-user products carrying Avastar 88W8897 will ship in 2013.

The announcement from Marvell has generated much interest in the chip’s simultaneous support of near-field communication (NFC), a set of standards for smartphones and similar devices to establish radio communication with each other. NFC simplifies the pairing of two wireless-enabled devices. The tap and go functionality for paying with [mobile devices](#) has been widely publicized. Using NFC, people can also transfer files in short distance. They can quickly open up a connection to transfer photos, videos, or games from one device to another. The new Marvell chip also has Integrated Location Engine, a Wi-Fi location engine for indoor positioning.

“I believe the world’s first 802.11ac mobile MIMO combo solution with NFC from Marvell will fundamentally change the wireless landscape and truly enable the entire spectrum of always-on consumer products,” said Weili Dai, co-founder of Marvell.

The announcement gels with earlier reports in February, when [Marvell](#) made a stir at the Barcelona World Congress, announcing significant upgrades to its single chip combination radio portfolio - including 802.11ac, NFC, and location-based services.

**More information:** [www.marvell.com/wireless/asset ...  
-001\\_white\\_paper.pdf](http://www.marvell.com/wireless/asset...-001_white_paper.pdf)  
[www.marvell.com/company/news/p ... il.do?releaseID=2421](http://www.marvell.com/company/news/p...il.do?releaseID=2421)  
[www.marvell.com/wireless/avastar/88W8897/](http://www.marvell.com/wireless/avastar/88W8897/)

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