

# INNOVATION

THE FUTURE AS SEEN THROUGH TECHNOLOGY

## ATHEROS INSIDE WHILE INTEL'S IN FRONT

**W**ho knows how many millions of people have been introduced to Wi-Fi since Intel launched its Centrino chip bundle a few months ago? With Centrino's blue and pink logo slapped on everything from laptop packages to the front door of McDonald's, mainstream awareness of Wi-Fi is rocketing to new levels, and Intel may be getting all the credit.

However, there are other chipset developers making important contributions to Wi-Fi—and arguably more frequent and rapid innovations—than Intel. Atheros Communications, a Wi-Fi chipset developer in Sunnyvale, Calif., that just celebrated its fifth birthday last month, has seemingly done far more with the technology than Intel but with far less of a marketing budget to promote it.

Atheros was the first wireless LAN chip supplier to deliver commercial products based the high-speed 802.11a standard. More significantly, it has been touting integrated multimode 802.11a/b/g chipsets while Intel and other companies have kept a more limited focus on 802.11b.

Atheros recently launched seven new chipsets comprising the third generation of its multimode products. The new capabilities feature expanded throughput and coverage with lower power and cost requirements. The new chipsets include the three new designs for the Universal Wireless Connectivity portfolio for client devices, and four in the Wireless System-on-a-Chip (WiSoC) for access points.

On the client side, there is a new two-chip version of Atheros' previous three-chip multimode 802.11a/b/g solution. That includes an 802.11b/g set targeted at value-priced consumer Wi-Fi devices, and an 802.11a chip that supports voice over IP on a Wi-Fi client device. The

third-generation chipsets are shipping with support for draft 8.2 of the 802.11g specification—the final 802.11g draft version. “We are announcing availability of our third-generation 802.11a/b/g and 802.11b/g silicon while competitors still struggle to launch their first-generation products with 802.11a support,” said Craig Barratt, president and CEO of Atheros.

“The introduction of universal client cards means that any client can work with any type of access point on the network side,” Barratt said. “Client devices will become universal and make the network technology moot.”

Universal connectivity features will allow users to buy multimode client cards now even if they don't have multi-mode access points in their homes or offices. “Dual-band access points are still much more expensive than single-band,” Barratt said. “You can use the multimode client card for now and buy a dual-band access point when the prices come down.”

That market reality is reflected in the other new chips. In the WiSoC portfolio, a multimode chipset for access points and home gateways allows concurrent use of both 802.11b/g client devices and 802.11a devices without performance interference. In addition, a new 5.8 GHz solution will support video and voice applications through access points.

Voice is rapidly becoming the next step in the developing pattern of Wi-Fi usage. Though video applications lie further down the road, they offer great promise to change the model for broadband home networking, Barratt said. “You could download a movie in one room, transfer it to a TV in the family room, or to the TV in the bedroom—

all using a Wi-Fi home network.”

The only remaining question: If you have a big-screen TV with a Wi-Fi chipset in it, will there be a way to know whether it's “Atheros inside”? —DAN O'SHEA



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— CRAIG BARRATT, ATHEROS

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