

Quantenna Introduces Third-Generation 4x4 MIMO 802.11n Wi-Fi Chipset

Quantenna Communications, Inc., a leader in ultra-reliable Wi-Fi networking for whole-home entertainment, today announced its third-generation Full-11n 4x4 Multiple Input Multiple Output (MIMO) Wi-Fi chipset, offering industry-leading reliability and whole-home coverage for delivering carrier IPTV services over wireless networks. The company's 802.11n Wi-Fi chipsets are in trials with over 12 service providers worldwide, for broadband digital video services that require robust performance anywhere in the home.

"With this latest generation in our proven Full-11n family, we have extended our industry leadership position over other alternatives in terms of Wi-Fi robustness and reliability for carrier-class broadband digital home service delivery, and believe we are at least 12 months ahead of any other solution provider in 4x4 MIMO innovation," said David French, Quantenna's CEO. "We also continue to significantly drive down cost and power, and our 4x4 MIMO devices now approach the price range of 3x3 MIMO devices that have significantly less reach and reliability. Quantenna's 4x4 devices continue to be the only Wi-Fi solutions available that feature the full complement of carrier-grade, industry-standard 802.11n features that are necessary for distributing multiple video streams throughout the home at full, 1080p resolution."

The Quantenna chipset is optimized for volume production, and future-proofed with a feature set that is considerably ahead of alternative solutions. The company has cut device size in half and power consumption by one-third as compared to previous solutions, and incorporated features that simplify transceiver certification in the U.S., Europe and Asia. Quantenna also has optimized performance for today's carrier-class networking platforms, while anticipating the requirements of emerging standards.

Error vector magnitude (EVM) and phase-noise performance have both been enhanced to boost range and reliability, and the chipset's best-in-class receiver linearity significantly reduces interference.

Furthermore, Quantenna has increased channel bandwidth to 80MHz, enabling the chipset to support higher throughput for such emerging standards as 802.11ac, which is expected to deliver speeds of up to 1.2 gigabits per second by improving on the efficiency of existing technology. These and other Quantenna Full-11n chipset features give carriers the whole-home reach and reliability they need to provide their subscribers with the best possible experience when they are receiving broadband entertainment and networking services.

Quantenna's third-generation chipset incorporates all specifications in the IEEE802.11n standard including 4x4 Multiple Input Multiple Output (MIMO). It also

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incorporates extensions to the IEEE802.11n standard including dynamic digital beamforming, and wireless channel monitoring and optimizing. These features enable Wi-Fi home networks to deliver the same quality as wired Ethernet, including supporting up to full HD video with 1080p resolution, anywhere in the home, while guaranteeing compatibility with existing and future IEEE 802.11n-compliant products. Quantenna's Full-11n technology also enables industry-standard Wi-Fi to serve as an ultra-reliable, carrier-class, whole-home IPTV networking backbone for complementary single-room wireless technologies, including emerging short-range 60 GHz solutions from companies in the WirelessHD Consortium and Wireless Gigabit Alliance (WiGig).

"Today's Wi-Fi ecosystem includes both whole-home 802.11n technologies and short-range, single-room solutions such as WirelessHD, WiGig, 802.11ad and 802.15.3c," said Brian O'Rourke, principal analyst, digital entertainment, for In-Stat. "Among these technologies, it's up to 802.11n technology to provide the backbone for reliably distributing IPTV and other demanding services to any room in the home. 4x4 MIMO with dynamic digital beamforming can give carriers this critical, whole-home wireless service guarantee."

Availability

Quantenna's third-generation chipset is available now as part of the company's QHS610 reference design. The reference design includes an evaluation board plus cables for connecting it to an external controller. A complete software developer's kit (SDK) implements the entire networking and device discovery/connectivity functionality required for a full solution supporting the 802.11n standard. Also included is a full test suite of specialized video-over-wireless radio frequency (RF) calibration and performance-characterization software, including an easy-to-use graphical user interface (GUI). Pricing for the QHS610 reference design is available upon request.

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