Marvell Introduces World's First Ultra Low-Power 90nm WLAN Single Chip Solution

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Marvell, the leader in development of storage, communications, and consumer silicon solutions, today announced the Marvell 88W8686 - the world’s first ultra-low-power 90 nm Wireless LAN (WLAN) single chip solution. Further expanding the Company’s market leadership in the WLAN space, the Marvell 88W8686 raises the bar on WLAN performance by offering the industry’s lowest total system power – drawing less than 400 mW – and the smallest total system footprint – less than 50 mm$^2$.

Marvell is the leader in the embedded consumer WLAN market with more than 70% market share. Marvell revolutionized WLAN with the introduction of consumer-grade, embedded WLAN solutions for gaming, single and dual-mode mobile handsets, PDAs, digital cameras, MP3 players, and printing platforms. As a result, Marvell has enabled its tier-one OEM customers to successfully introduce industry-leading products into the gaming, cellphone, imaging, and PDA markets. Building on this track record of success, the Marvell 88W8686 represents three generations of leading-edge WLAN products, and significant investment in silicon and embedded software development.

“Our vision of the smallest and lowest-power silicon solution drove our 90 nm process development. The Marvell 88W8686 gives our customers the ability to enhance battery life by at least 100%,” said Dr. Paramesh Gopi, General Manager of the Embedded and Emerging Business Unit, Communications and Consumer Business Group at Marvell. “This third-generation WLAN solution builds on Marvell’s leadership in system
software, and adds revolutionary new features for consumer products.”

An example of Marvell’s 88W8686 solution in a dual mode handset would result in connected standby times in excess of 250 hours and talk time in excess of 10 hours, versus current solutions which offer on average 70 and 4 hours respectively. Additionally, the Marvell 88W8686 continues Marvell’s legacy of supporting advanced layer 3/4 packet processing (TCP/IP) along with enhancements for UMA and IMS 3G services.

The Marvell 88W8686 has defined a new standard of power, performance, and size for WLAN solutions in consumer devices. By migrating Marvell’s field proven WLAN technology to the most advanced 90 nm process, Marvell has created the world’s smallest, lowest-power, highest integrated, single chip solution.


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