

# World's First 802.11a/g Single Chip Solution Embedding TCP/IP

January 10 2005

---

Marvell, the technology leader in the development of extreme broadband communications and storage solutions, announced the industry's first embedded [Wireless LAN](#) (WLAN) chip with integrated TCP/IP networking to provide the most advanced 802.11a/g solution for mobile consumer applications. The Marvell 88W8388 chip is designed specifically to meet the requirements of the next generation, high volume consumer electronic products such as gaming consoles, digital still cameras, digital video cameras, printers, cellular phones, PDAs and MP3 players.

The traditional PC WLAN connectivity solutions are not well suited to meet the stringent needs of consumer electronic devices. Mobile consumer devices require a new degree of power optimization, ultra compact size and the ability for WiFi to co-exist with multiple cellular and Bluetooth radios. Additionally, these devices need a thick MAC architecture to offload the host processor of networking and application functions to integrate WLAN capabilities. Marvell's microwatt WLAN transceiver technology coupled with a powerful, scalable, network aware application processing functionality offer OEM's the ultimate flexibility and maximum power savings. Marvell's current solutions meet these stringent requirements and have already enabled major tier one OEM's in the portable gaming, cellular handset, PDA and imaging product segments to successfully integrate WLAN into their current generation of high volume flagship products.

The next generation of sophisticated camera phones, high-resolution

digital cameras, and high capacity MP3 music players will require ad-hoc wireless connections for inter-device communication. The ideal WLAN solution to address these requirements should incorporate complete TCP/IP network processing to enable consumer products to achieve seamless peer-to-peer access and connectivity to the Internet. Marvell offers unprecedented integration of application aware network processing to fulfill this need. Systems designed with the Marvell 88W8388 allow users to easily stream music wirelessly from an MP3 player to Hi-Fi speakers, transfer videos and photos directly from cellular phones and digital cameras to WLAN enabled TVs, form a private gaming network instantly, and surf the Internet from any hot spot.

The 88W8388 is the world's first device to combine embedded TCP, UDP and IP networking functions with Marvell's proven multimode 802.11a/g technology and enables new usage models such as peer to peer printing, ad-hoc gaming, streaming audio/video and a variety of Voice over IP (VoIP) applications. This ultra-low power and small size device is designed to meet the unique requirements of consumer products. It features an integrated ARM CPU, audio codec interfaces for true high-fidelity sound, high-speed serial host interfaces including USB 2.0, SDIO, and SPI to ensure interoperability with a variety of host systems. It is fully compatible with Marvell's existing suite of software drivers for seamless migration to a consumer class 802.11a/g solution.

“With the advanced capabilities offered in our 88W8388 chip, OEM's can now easily add WLAN connectivity to existing products with little or no impact to their system architecture and gain significant time to market advantages,” said Balaji Baktha, vice president and general manager of Marvell's Embedded and Emerging Business Unit. “This will further accelerate the adoption of WLAN in high volume consumer products.”

Citation: World's First 802.11a/g Single Chip Solution Embedding TCP/IP (2005, January 10)  
retrieved 9 April 2024 from  
<https://phys.org/news/2005-01-worlds-80211ag-chip-solution-embedding.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.