The Tinker's Toolbox - Ralink Mobile Wi-Fi Products

Hosted by ECN's Editorial Director, Alix Paultre, the Tinker's Toolbox is ECN's web-based interview show where we talk about the latest technology, components, and design issues for the electronic [1] design engineering community.

In this episode of the Tinker's Toolbox, we talk with David Borison of Ralink about their mobile Wi-Fi product line for cell phones and portable consumer Electronics. The RT3180 and RT3680 are highly integrated 2.4GHz and dual-band 802.11n WLAN chips for high performance portable consumer electronics wireless applications that require mobility, connectivity and range, while the RT3180 and RT3680 integrate a host of mobile specific functionality including high-performance power amplifiers, low noise amplifiers, and various other front-end components.

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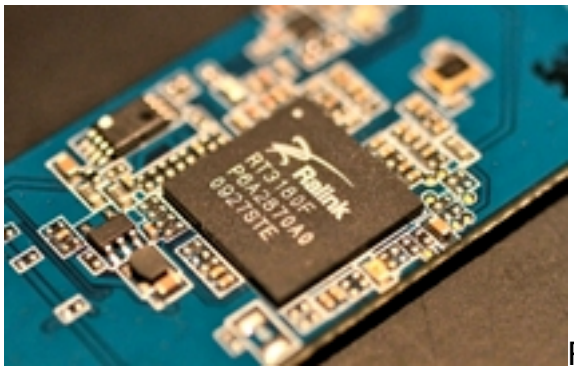
Here is the product release for the devices:

Ralink Launches Mobile Wi-Fi Product Line for Cell Phones and Portable Consumer Electronics
New Chips Deliver High Performance and Low Power Consumption in a Highly Integrated Form Factor



Ralink Technology, a leading developer of high performance wired and wireless networking solutions, today announced its entry into the mobile Wi-Fi market with the introduction of the RT8180 for cellular phones and the RT3180 and RT3680 for portable consumer electronics products. Complementing Ralink’s existing product lines for the PC OEM, Retail, Broadband and Stationary Consumer Electronics market segments, Ralink’s new mobile offerings complete the company’s portfolio of Wi-Fi solutions which now cover all major market segments for Wi-Fi semiconductors.

“Ralink is a well established supplier of WLAN solutions into the computer and networking markets with a strong track record of performance, innovation and value” said Jagdish Rebello, principal analyst for iSuppli. “With WLAN becoming increasingly integrated into smartphones and high end feature phones, the mobile handset market presents an attractive opportunity for Ralink to expand their WLAN market share. With the introduction of RT8180, Ralink now has the capability to compete in that market.”

The RT3180 and RT3680 are highly integrated 2.4GHz and dual-band 802.11n WLAN chips for high performance portable consumer electronics wireless applications that require mobility, connectivity and range. The RT3180 and RT3680 integrate a host of mobile specific functionality including high-performance power amplifi¬ers, low noise amplifi¬ers, and various other front-end components that enable low-cost and small form-factor designs for portable consumer electronics applications such as digital camcorders, digital cameras, mobile gaming platforms, and tablet PCs. An integrated power management unit further reduces external

component count while enabling support for advanced low power states, making these solutions ideal for compact battery-powered mobile devices. Embedded processors offload all 802.11n related functions including support for Wake on Wireless LAN. The RT3180 and RT3680 also feature 2, 3, and 4 wire Bluetooth coexistence mechanisms, and a rich set of interfaces including USB 2.0, SDIO 2.0, GSPI, UART, SPI, and I2C, creating an ideal feature set for ultra-connected mobile devices.

The RT8180 is a low cost, single chip Wi-Fi solution architected specifically for mobile phone applications. This device contains a 150Mbps 802.11n media access controller (MAC) and baseband, a high-performance 19dBm 2.4GHz radio and power amplifier, a low noise amplifier, an integrated transmit/receive switch with support for 2-antenna diversity that improves range and reliability, a mobile-centric SDIO 2.0 interface, integrated RAM and ROM memory, and an embedded power management unit. Featuring 100 percent host CPU offload capability, per-packet antenna diversity technology, power management optimizations, support for Wake on Wireless LAN, and other radio/baseband enhancements to increase range and reliability, the RT8180 delivers best-in-class Wi-Fi performance for mobile phones at competitive price points.

“Many of today’s consumer electronics products such as camcorders, cameras and mobile gaming consoles are ‘connected hubs’ in a multi faceted, networking-focused ecosystem. Add smartphones to the mix and you have an unprecedented market opportunity as all manner of consumer electronics devices become connected -- with 802.11n Wi-Fi as the high speed connectivity technology of choice,” said David Borison, vice president of marketing at Ralink Technology. “Ralink’s deep portfolio of market-leading semiconductors, along with our technology innovations in size, power consumption and performance are a perfect fit for today’s ultra-compact and high-performance mobile devices.”

For more information visit www.ralinktech.com [3]

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