New Combo Chips from Broadcom Accelerate Transition to Dual-Band Wi-Fi for Mainstream Smartphones and Tablets

802.11n Dual-Band Wireless Connectivity Meets the Needs of Mainstream Devices as Performance Products Move to 5G WiFi

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News Highlights:

- 2x2 MIMO Wi-Fi technology provides whole-home, high bandwidth connections ideal for video intensive tablet applications
- 40nm CMOS manufacturing process and lower power architecture deliver longer smartphone battery life
- Integration of Bluetooth 4.0 and FM radio round out the most advanced wireless connectivity solutions for mainstream tablets and smartphones

Broadcom Corporation (NASDAQ: BRCM), a global innovation leader in semiconductor solutions for wired and wireless communications, today announced two new dual-band combo chips optimized to provide whole-home, high speed Wi-Fi for tablet computers and the benefits of concurrent dual-band connectivity for smartphones.

Both of these new chips are manufactured in a 40nm process and employ the most advanced power management techniques, thereby significantly increasing battery life in products that use them. While the high end of the market is expected to adopt 5G WiFi, these chips move the bar for mid- and low-tier devices, bringing a cost effective dual-band implementation to smartphones and an equally cost effective dual stream solution to tablets.

Smartphones and tablets continue to grow in popularity among mainstream consumers and are increasingly being used for sharing content, multiplayer gaming and watching high definition video. Features such as Wi-Fi Direct and Wi-Fi Display often use the 5GHz frequency band, making dual-band operation essential in portable products. In addition, operating systems like Android and Windows are enabling more sophisticated applications on these devices, making high-speed dual-band wireless connectivity a must.

The new Broadcom® InConcert BCM43241 and BCM4334 combo chips feature advanced dual-band Wi-Fi technology that utilize both 2.4GHz and 5GHz radio channels. The BCM43241, targeted at tablets, also features dual-stream technology, utilizing two streams per channel to enable twice the throughput and better range than the current generation of products that incorporate single-stream Wi-Fi. While dual-band Wi-Fi dramatically improves the video experience in the mainstream tier, performance smartphones and tablets are expected to further enhance these applications by adopting 5G WiFi for gigabit wireless speeds.

Both chips are currently sampling to early access partners, with full production expected in the third quarter of 2012.

Key Facts:

- BCM43241 improves throughput and range for mainstream tablets:
  - 802.11n 2x2 MIMO technology utilizes dual transmitters and receivers to boost data rates and enable 70% greater range at high-speed than single stream Wi-Fi.
  - Optimization for the tablet form factor allows strategic placement of antennas to increase coverage and signal consistency.
  - Integrated RF power amplifiers (PAs) accommodating both the 2.4 GHz and 5 GHz frequency bands eliminate the need for external PAs, reducing bill of materials (BOM) cost.
  - Chip is industry's first to combine MIMO Wi-Fi with Bluetooth 4.0 and FM radio on a single piece of silicon, enabling lower power and easy integration into new tablet designs.

- BCM4334 slashes power consumption:
  - Integrated processor enables off-load of audio processing to allow stereo playback while smartphone sleeps, reducing system power consumption.
  - Industry's first concurrent dual-band single-stream solution supports ultra-fast switching between 5GHz and
2.4GHz bands to deliver more bandwidth to multiple wireless applications.

- Optimized architecture slashes Bluetooth and FM power needs.
- Industry's most complete connectivity solutions:
  - Chips include FM radio, Bluetooth 4.0 and Bluetooth Smart (Bluetooth Low Energy) support for ultra low power connectivity with health, fitness and other sensors.
  - Broadcom InConcert® technology allows the multiple radio technologies on the chips to coexist without interfering with one another for an overall more satisfying user experience.
  - 40nm CMOS manufacturing process and optimized low power architecture reduces power consumption compared to competing solutions for longer battery life.
  - Full software support available for both Android and Windows, with support for Wi-Fi Direct and Wi-Fi Display, and the richest portfolio of Bluetooth profiles available.

Quotes:

Michael Hurlston, Senior Vice President and General Manager, Wireless Local Area Networks

Broadcom Corporation

“Connectivity defines the smartphone and tablet experience. The key features and applications that are driving popularity of these devices rely upon consistent, high-speed Wi-Fi and fast wireless synchronization speeds with low power consumption. Our new chips meet these needs with combo solutions, which OEMs prefer, and will accelerate the adoption of dual-band Wi-Fi in mainstream mobile devices. With 5G WiFi gigabit wireless targeted at performance smartphones and tablets, dual-band Wi-Fi is now emerging as a ‘must-have’ for a satisfying mobile experience.”

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