

Snippet of some players in the 60GHz and 802.11ac market

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Some 802.11ac players



Broadcom

- First family of 802.11ac chipset for routers & laptops. Routers already in market today
- Top 5 routers (reviewed by PC World in Spe'12) have BRCM chips
- Smartphone solution announced in July '12 (802.11ac + Bluetooth 4.0 + FM radio on a single die)
- New chip in sample phases & devices with it to enter mkt - early 2013, 40nm CMOS techno

Qualcomm

- Qualcomm Atheros solution
802.11ac + Bluetooth 4.0 + FM radio chipset – intended for tablets and notebooks
- Volume shipments in end 2012 (as announced in June '12)
- Smartphone solutions not till end 2013
- Also announced the new QCA9005AP 802.11ac reference platform for wireless routers, gateways and enterprise access points
- 802.11ac ecosystem solution – target all device classes – along with their Snapdragon

Some 802.11ac players

Marvell

- Announced Avastar 88W8897 in June '12
- Has 802.11ac + NFC + Bluetooth on a single die (only 802.11ac chip with NFC), Primarily for mobile devices
- Will be embedded inside complete hardware (like ultrabooks/tablets) rather than being sold as adapters
- Half the size of Broadcom chip & up to 75% cheaper than alternatives
- Short on performance (900Mbps)
- End user products using Avastar 88W8897 scheduled in 2013

MediaTek

- MT7650 – 802.11ac + Bluetooth 4.0 Low Energy on a single die.
 - Slower than Qualcomm's 3 stream designs offering 1.3Gbps
 - Proprietary algorithm reduces interference between Wi-Fi and Bluetooth radio – allows them to share same antenna – hence lower cost
 - Target applications – mobile consumer platforms
 - Other chips in the family for routers & access points – RT6856.
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Some 802.11ac players



Quantenna

- First to come out with a 802.11ac chip
- Used for routers made by Motorola & NetGear
- Got \$79M funding in Apr '12

Redpine

- Dual band, samples due in 3Q12
- Also licenses a hard macro version for customers who wish to do their own chips

Intel

- Does not plan to support the new 802.11ac standard and much higher speeds at least until Q2 2013.
- Haswell notebook platform's (to be launched next year) wireless module (code: Wilkins Peak 2) supports 802.11ac & Bluetooth.
- Should support dual band, be backward compatible with 802.11b/g/n

Other

- Samsung acquired Nanoradio and handset connectivity & location development operations of CSR.
- However, it still lacks a mobile Wi-Fi chipset to compete with Qcom, Brcom, Mtek. (too late)
- Plans to introduce 1st product from CSR acquisition in 2013

Some 60 GHz players



Wilocity

- Next generation 60 GHz chipsets for both mobile computing & peripheral markets
- May '11 – Partnered with Qualcomm Atheros - AR9004TB, the industry's first tri-band Wi-Fi chipset (2.4, 5, 60 GHz) – expected end'12 and focus on notebook mkt -Wilocity's 65nm Marlon chip
- Oct '12- Dell's first WiGig enabled Ultrabook for business, the Latitude 6430u has Wilocity-Qualcomm tri band solution
- July '12: Partnered with Marvell for platform solutions, For broader range including tablets, ultrabooks, phones, also targeting access points, residential gateways & media centre devices – Will support 802.11n for 2.4G and 5GHz as well as 802.11ad, but not 802.11ac
- Both Marvell & Qualcomm have stakes less than 10% in Wilocity

Beam Networks (Israel)

- Its 60 GHz solution is independent of any specific baseband processing - allows support for multiple standards.
- Working in a close partnership with IBM and IMST GmbH to commercialize this wireless solution

Some 60 GHz players



Blu-Wireless Technology (Bristol)

- intends to license its BW6XX WiGig IP to customers
- Fabless to supplier of System IP (SIP) for 60 GHz Wi-Fi applications

Nitero (Austin)

- Spun out of National ICT Australia (NICTA) research institute.
- Reported to have raised \$3.1m in latest round of funding

Peraso Technologies (Toronto)

- Slated to announce its 60 GHz chip in late 2012 /early 2013.
- Began sampling 60GHz transceivers earlier this month (Sep 2012)