Global and China Mobile Phone Baseband Industry Report, 2010

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This report

- **Illustrates mobile phone market, smart phone design, mobile phone baseband industry and development direction**
- **Analyzes the baseband application of mobile phone manufacturers, also operation of baseband manufacturers**

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Abstract

STMicroelectronics, EMP and NXP's wireless division merged to be ST-ERICSSON, which has not given play to the synergy，while its revenue has started to decline, with the more drastic drop in growth margin than other mobile baseband peers. ST-ERICSSON has suffered losses for consecutive 13 quarters, mainly on account of the competition from Qualcomm, TI and Infineon. Particularly in the field of smart phones, ST-ERICSSON really has nothing good or unusual to report, while Qualcomm develops well in the world since 90% of the smart phones made by Samsung and SonyEricsson adopt Qualcomm's basebands. Nokia develops more suppliers actively, and the shipment of its mobile phone with the basebands of Infineon and Broadcom soared in 2010, which grasps the market shares of ST-Ericsson. In respect of TD-SCDMA, ST-Ericsson is challenged by MTK.

Revenue of Major Mobile Phone Baseband Vendors in the World, 2009-2010

	Revenue in 2009 (USD mln)	Revenue in 2010 (USD mln)	Growth Rate
ST-ERICSSON	2054	1810	-12.3%
SPREADTRUM	105	296	181.9%
MTK	2485	2510	2.1%
QUALCOMM	6135	6580	7.3%
TI	1725	1708	-1%
FREESCALE	418	296	-29.2%
INFINEON	917	1780	94.1%
BROADCOM	138	251	81.9%
MARVELL	298	602	102.0%

Source: ResearchInChina

In 2010, Spreadtrum took the chance of MTK's mistake to aggressively seize MTK's shares in knockoff cellphone market, so that the shipment of Spreadtrum increased significantly, its revenue tripled and its operating profit rose greatly. However, MTK will not always make mistakes, and the absence of Spreadtrum in the arena of 4G and smart phone limits its development.

In 2010, MTK almost made a fatal error because of the application of QFN packaging. MTK overrated the SMT chip placement capability of mobile phone manufacturers in Mainland China. Fortunately, MTK timely adjusted its strategy, and the SMT chip placement capability of mobile phone manufacturers in Mainland China was enhanced hereby. Finally, MTK protected its position. Yet, MTK does not have the ability to achieve high-speed growth any more. Like Spreadtrum, that MTK is not engaged in the field of 4G and smart phone restricts its development, which can be shown from the brain-drain of top talents of MTK.

Qualcomm has further consolidated its leading position in the areas of CDMA, WCDMA and smart phones. Also, the leadership of Qualcomm in smart phone field gets enhanced. After Intel acquired Infineon's wireless division, Qualcomm is likely to enter Apple's supply chain. If smart phone is defined in a stricter sense, Qualcomm is almost Intel which is the giant in PC industry. Apart from Apple, the CPU of all top mainstream smart phones comes from Qualcomm. In 2010, Qualcomm had to keep a low profile and lowered its prices slightly in order to occupy market shares. With many years of cooperation with TSMC as well as 65nm and 45nm technologies, Qualcomm will see the rising gross margin in spite of the lowered prices. Qualcomm has placed an additional order to TSMC for 700,000 pieces of 12-inch wafer in 2011, because the order backlog of Qualcomm has arranged till 2012.

TI performed well in 2010. Thanks to the massive shipment of Nokia's smart phones, TI has stable shipment of high-priced products. TI's RAPUYAMA has replaced RAPIDOYAWE jointly developed by Nokia and FREESCALE. New smart phones of Nokia without exception employ RAPUYAMA as basebands. Although RAPUYAMA doesn't deliver high operating speed, to Nokia it's competent and economical. However, excessive correlative dependence is risky for both Nokia and TI. Nokia has tried to apply the basebands of QUALCOMM to its smart phones.

FREESCALE has transferred from baseband to application processor, so a decline in performance is inevitable.

INFINEON's wireless division was acquired by Intel at the end of August 2010, and the acquisition will be completed in Q1 2011. INFINEON's business is booming in 2010, its largest client Apple has delivered a remarkable performance, and its large initial-stage investment in Nokia has finally been paid back with soaring shipments. INFINEON's wireless division experienced even higher profit growth. Its operating profit achieved EUR142 million in the first three quarters of 2010, a substantial increase compared with EUR8 million in the same period of 2008.

However, as mobile phone business needs continuous considerable financial and human resource investment, INFINEON has acknowledged its inferiority in this regard, especially to its rival QUALCOMM which has established an extensive presence in 4G and 5G areas. Compared with INFINEON's automotive, industrial control and smart card divisions, the wireless division made meager profit, so INFINEON decided to sell the division. At the time, Intel had been seeking for new development opportunities in the fields other than PC, and was confident that it's powerful enough to contend with QUALCOMM, so it acquired INFINEON's wireless division. In a short term, the wireless division will bring satisfying profit to Intel. Apple will not give up the long-term partner and design architecture quickly. In the CDMA field, INFINEON has no corresponding products, so Apple will adopt QUALCOMM's products.

BROADCOM has a very wide business scope and diversified products. With insufficient investment, its mobile phone baseband business has been sluggish for years. However, in 2010, after years of development, BROADCOM finally saw its shipment to Nokia and Samsung rise significantly. At the same time, BROADCOM develops 4G actively. In October 2010, BROADCOM acquired Beceem for USD316 million.

Benefitting from the growth of its major client RIM and the smart phone sector, Marvell has achieved good financial results. As RIM is losing the battle with Apple, Marvell has to consider how to develop new clients or increase the shares of new clients.

MStar, going public recently, has been widely recognized as a promising enterprise, but will encounter the difficulties of MTK and SPREADTRUM sooner or later. During the first three quarters in 2010, MStar only gained RMB220 million from the mobile phone business into which it has put much effort.

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