### Global Mobile Phone Platform (Baseband) Industry Report, 2007-2008



At present, the main global mobile phone baseband manufacturers include Texas Instruments or TI, Ericsson Mobile Platform, Qualcomm, MTK, NXP, Freescale, Infineon, Broadcom and Spreadtrum. Depending on the cooperation with Nokia in 2G Era, TI created a win-win situation for the two. However, TI seems to have underestimated the coming of 3G era and is lack of 3G baseband products, besides large quantity of application processors put on the market. So far, TI has launched only one 3G baseband product, OMAPV2230, which is not that popular in the market. In the whole year of 2007, TI did not roll out any 3G baseband product and in fact, only launched 1-2 new 2G products. No wonder TI is seeking cooperation with Ericsson Mobile Platform or EMP, to jointly develop 3G baseband, but it seems a bit late. EMP, a subsidiary of Ericsson, has aimed at the development of 3G baseband products since its establishment in 2001. Its accumulated shipment of 3G mobile phone platform of U100 has exceeded 50 million. EMP used not to adapt itself to the rapid development of consumer electronics and was lack of market promotion. However, in the recent years, EMP has made some changes and rolled out U380 and U500 mobile phone platforms in February of 2008 successively. The U500 is a powerful multimedia platform, while the U380 mobile platform is a one-chip solution combining an Ericsson HSPA modem with a TI OMAP3430 processor.

As an easy winner, Qualcomm has occupied the top upstream of the industry chain and earned huge profits easily no matter from 3G or 4G. People all thought that its UMB would not have a bright future in 4G Era, but Qualcomm bought Flarion, the developer with OFDMA technology in 2005. OFDMA technology has covered any core technologies of 4G, that is to say that nobody can get rid of Qualcomm in 4G Era, let alone in 3G era. Its MSM series chips have been the only choice of key producers all along.

MTK has got access to the supply chain of LG smoothly after purchasing ADI and has 90 percent of opportunity to become a supplier of Samsung supply chain. The purchase of the mobile phone department of ADI helps MTK greatly, including:

I. Obtaining TD-SCDMA baseband technology and permit, ADI is the primary owner of TD-SCDMA baseband technology and the major foreign supporter of TD-SCDMA in Mainland China;

II. Obtaining the clients of big international mobile phone manufacturers, the big baseband clients of ADI include LG and Sharp, which can become the clients of MTK, and Samsung adopts the radio frequency IC of ADI;
III. Obtaining the revenue above US\$300 million, the mobile phone department of ADI is expected to contribute revenue of US\$320 million in 2007 and contribute revenue of US\$340 million in 2008;

IV. Obtaining the DSP and radio frequency technology of ADI, which help MTK develop its 4G products, enhance its technical strength and lay a solid foundation for turning itself into a big producer. Even the strict Japanese mobile phone manufacturers have accepted its products and Sanyo has adopted the platforms of MTK. Even if MTK gives up the black market of mobile phones, it will be still among the top three globally. Freescale relies too much on Motorola, so whenever Motorola's performance falls, it follow suit. If Motorola sells its mobile phone business, Freescale may do so as well. Therefore, its mobile phone business could become nothing without the big client of Motorola. The possibility is very small that Motorola sells its mobile phone business. Freescale must open up new market to reduce its heavy dependence on Motorola.

Freescale may sell its mobile phone business:

Firstly, it has a continuous drop in performance and its mobile phone business has the lowest gross profit in its three product lines, but its spending in mobile phone business is huge.

Secondly, Motorola's fall in performance weighs on the performance of Freescale.

Thirdly, the mobile phone industry faces upgrading, which require a huge input of both capital and professionals, and even if it gains a firm footing in technology, it doesn't mean it stands firmly in the market. So, the risk is huge. Finally, Freescale is under the control of private equity fund. Global economic downturn and especially the credit crunch in the U.S.A. has resulted in a plunge in fund performance, private equity fund will surely make an attempt to sell part of assets to ride out the storm.

Infineon has successfully got access to the supply chain of Samsung by purchasing the mobile phone business of LSI. Infineon is nearly matchless in mobile phone radio frequency field, while it is adept at IC manufacturing and packaging. The X-GOLD-213 of Infineon is the most advanced baseband globally without doubt, and it not only integrates transceiver, power source management and mixed-signal but also integrates FM radio and SRAM. The best part is its packaging size is only 8\*8mm, compared to 14\*14mm, the packaging size of the baseband BCM-21551 of Broadcom with the same function. Infineon will be the most potential baseband manufacturer undoubtedly.

Both Broadcom and Qualcomm are good at engaging in lawsuits. But Broadcom won the lawsuit on baseband, meaning at last there is a manufacturer, which is able to enter into 3G market through bypassing Qualcomm. The 3G products of Broadcom has also got the authorization of Samsung, moreover, Broadcom has occupied over 70% of the market share in the low-end products of Sony ERSSION. It is impossible for Broadcom to occupy 15% of the global market share in 2009, but the potential of Broadcom is strong.

NXP has made some adjustments to its product lines after purchasing the mobile phone radio frequency department of Silicon Labs, but the adjustment is too slow. Its low-end mobile phone won't be put into mass production until the last quarter of 2008, it is obviously too slow. As we all know that low-end mobile phone was put on the market as early as 2005. So when its low-end product is put on the market in late 2008, the market will have become saturated by then.

It is very wise for Spreadtrum to purchase a radio frequency factory to fill up the gap in its business. The design of single chip and double card is quite innovative. If Broadcom wants to get access to China's market, it will be the fastest and wisest way for it to purchase Spreadtrum. Broadcom is adept at growing rapidly through acquisitions and mergers, so we believe that the possibility that Broadcom purchases Spreadtrum is very big that.

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