

## Global and China Mobile Phone Baseband Report, 2009-2010



As far as baseband shipment is concerned, Mediatek ranked first worldwide in 2009 and it continue its leadership in this respect in 2010. It is beyond doubt that knockoff cell phones, i.e. grey brand phones, played the leading role in MTK's great success.

China's grey brand cellphones can change the design quickly to meet the demand from all markets worldwide, which are characterized by exceedingly high efficiency and comparable cost competitiveness since the well-developed cell phone industry chain in Guangdong, China. Among MTK's total shipment, grey brand cell phones and brand ones occupy 60% and 40% respectively, while the growth is mainly driven by grey brands.

In 2008, MTK was accepted by LG and Motorola, but only confined to low-end products. However, it is with little possibility of gaining acceptance from Samsung, Nokia, Sony Ericsson, RIM and Apple, therefore, MTK has witnessed its peak and is hard to make any further progress. The success of MTK in 2G era also leads to its inadequate investment for 3G, or it can be said that the so fast arrival of 3G and 3.5G is beyond MTK's imagination.

In 3G era, all manufacturers should be faced with the biggest competitor, Qualcomm. Qualcomm WCDMA MSM series of products were launched as early as in 2001, and now they have become the best products currently after years of improvements. In the meantime, the low-price QSC series also have been the excellent product with best cost performance after five-year improvement.

MTK doesn't enjoy advantages in smart phone field, and it is extremely difficult for MTK to popularize its smart phone chip, which is bundled with the deteriorating Windows Mobile, plus not supporting 3G, so its performance is far behind that of mainstream smartphone CPU. Furthermore, MTK is not good at multimedia processing, 3D graphic generation, and floating-point computing power, all of which requires a long period of time of accumulation and carrying early layout. Now, only Qualcomm and Marvell are capable of producing smart phone CPU with Modem, since Qualcomm started layout a decade ago. Noticeably, it is too late even if MTK temporarily goes for Android.

Morningstar made its debut in mobile phone field in 2006 and obtained relevant capabilities after several acquisitions, aiming to replace MTK. So far, Morningstar has already rolled out four models of baseband, with the strategy of low prices carried out and full support to both big customers and small ones. In comparison, MTK is striving to transfer to brand clients and big clients, which will out of question leave market space for Morningstar and Spreadtrum. Nevertheless, grey brand market is highly risky with sharp fluctuations, since all of grey brand cell phones are assembled by the smuggled components, which is acknowledged within the industry.

Such high risk is an obstacle for MTK development in the future, which is one of reasons that it seeks for transformation. However, Morningstar has incomplete product lineup, while MTK is capable of providing not only baseband products, but also RF transceiver, power management, Bluetooth, touch screen, WLAN, FM radio, and USB. The powerful strength in analog, mixed signal and RF capabilities is the real superiority of MTK. There is not so much difficulty in producing a simply digital baseband since many manufacturers such as Coolsand, Skyworks and Silicon Labs all had issued before, but exited the field later.

Infineon booms in 2010, with its products being employed by part of Nokia low-end products. Also, Infineon carries the increasingly close cooperation with Apple. As the sole supplier of Apple's cellphone baseband, Infineon will benefit from iPhone 4. In addition, LG takes Infineon as its key supplier and the high, medium and low-end products of LG largely apply Infineon's products. Yet, Infineon's cell phone division characterizes far lower profit margin than other sectors, but possessing higher capital and resources. It is said that Intel intends to acquire Infineon's cellphone division, and Intel will return to the cell phone field once it succeeds. It can be imagined that the competition in baseband market will keep growing fierce due to Intel's powerful strength.

The year of 2010 is also fruitful for Broadcom, with its baseband massively adopted by Nokia's low-end products as well as applied by some domestic clients. Wining the lawsuit against Qualcomm in 2009 also brings the huge compensation of US\$700 million to Broadcom. Negatively, Broadcom has too wide a range of product lines, with scattered investment for cell phone filed resulting in little gains even after many years' efforts.

TI is a bit depressed, but it still has huge shipments due to years' cooperation with Nokia even though cell phone baseband is not its core business. TI baseband business income can still keep around US\$1.5 billion. At the same time, RALPHYAMA makes a great deal of shipment as well in the year of 2010, but ST-ERICSSON suffers from successive losses.

In the medium and high-end field, the big clients, both LG and Samsung, especially LG, have increased procurement for Infineon; while Nokia enhances reliance in the low-end field on Broadcom and Infineon. TD-SCDMA is the highlight of ST-Ericsson, but challenged by MTK.

Marvell's products are of first-class performance but with too high price. Luckily, it received strong support from the big client, RIM. Freescale still cooperates with Nokia and Motorola, and RAPIDOYAWE, jointly developed with Nokia, has become Nokia's flagship. Benefiting from MTK's transformation, Spreadtrum's shipment has boosted up.

Qualcomm performs most steadily, and sales of which more than doubles that of MTK. Qualcomm holds the absolute leadership both in 3G and in 4G field, and it is also extremely powerful in smart phone field.

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