

Mobile Phone Baseband (Platform, Chipset) Industry Report, 2009



The cell phone platform is composed of digital baseband, analog baseband, RF transceiver and power management. Herein, the report focuses on baseband.

Seen from competition layout of cell phone platform vendors in 2009, Qualcomm has taken the overwhelming advantages since it has always taken the lead both in 3G and 4G era. Qualcomm has the most complete product line, and the low-end QSC series target at CDMA2000 Feature Phone market; medium-end MSM62XX series aim at WCDMA Feature Phone market; and high-end MSM7XXX series are designed for smart phone market, besides, the top-end SNAPDRAGON serves for smart phone, MID, SMARTBOOK and netbook. Supported by Samsung, HTC and RIM in smart phone field, Qualcomm has enjoyed leadership in smart phone.

Nearly all cell phone platform vendors have been faced with bottleneck, and there is no exception to MediaTek. Reaching agreement with Qualcomm, MediaTek need not to pay for patent royalty. However, MediaTek has two types of clients, the small and medium customers are unwilling to pay Qualcomm high royalties due to their quite meager profits; while big clients have already reached an agreement with Qualcomm, and the patent fees have paid till the year of 2015 or even longer, so to make the purchase directly from Qualcomm will cost less. Therefore, it is impossible for MediaTek to successfully explore WCDMA market via MT6268. MediaTek lies hopes in TD-SCDMA but has protocol stack subject to Datang.

MediaTek still dominates 2G market, since it has successfully entered supply chain of Samsung, LG and Motorola, and it has contributed to over 45% in the markets except mainland China. In the meantime, MediaTek has also well performed low-price but not low-end cell phone market. Therefore, MediaTek's success doesn't rest with its powerful baseband and software, but its overall technology layout. MediaTek not only provides baseband, but also a series of products such as RF, power management, touch screen controls, Bluetooth, and FM radio. In addition, the latest MT6253 includes Class-D audio amplifier. In cell phone IC, MediaTek can supply all parts except PA and memory.

Spreadtrum acquired Quorum but not succeeded in developing suitable RF IC for baseband, and Mstar just has baseband products, so MediaTek's comprehensiveness cannot be replaced. MediaTek should pay more attention to the good yield of MT6253 motherboard, and its special aQFN packaging has not been massively validated yet, so it will take time for MediaTek to learn how to quickly achieve high yields. This brings opportunities to Spreadtrum and Morningstar, yet both has demerits in product singleness, heavily depending on the mainland market.

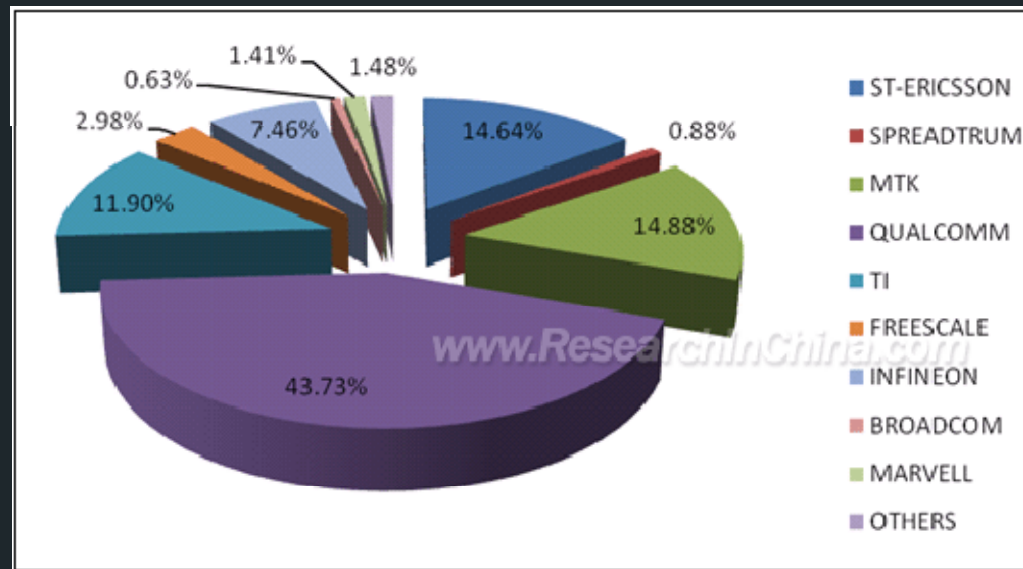
With bright future, ST-ERICSSON's participation will win advantages in competition with Qualcomm. EMP, with the perfect 3G and 4G RF technology, firstly launched LTE data card. ST has great strength in analog and RF sector, providing analog baseband, RF, Bluetooth and WLAN for Nokia for a long period. NXP has the powerful strength both in power management and in DSP field; and its subsidiary, T3G, is the monopoly in TD-SCDMA area. In smartphone field, ST-ERICSSON U850 has excellent performance enough to compete with Qualcomm MSM7XXX series, and even better in video performance. The high-end platforms of U365, U360 and U330 also perform exceedingly well. PNX52XX and PNX6XXX, inherited from NXP, have higher cost-efficiency and maturity, are the favorites of Samsung and LG. Yet, Samsung and LG enjoy the expanding market shares.

Infineon, once the world's largest RF transceiver vendor, has strong ability in RF field, and performs well in 4G era as well. What's more, Infineon is adept in integration, manufacture and IC packaging, always supplying baseband to Apple. In the ultra-low-cost mobile phone area, Infineon's superior integration capabilities have gained the acceptance from Nokia.

TI is declining and totally reliant on OMAP application processors in 3G era, while Qualcomm's MSM7XXX and SNAPDRAGON have successively encroached OMAP market share. However, the long cooperation with Nokia has maintained its revenue still be over \$1.5 billion since Nokia platform has a long conversion cycle, and more than 75% products still employ the old platform.

Broadcom has been unable to grow up, and its cell phone platform revenue just accounts for less than 5% of its total revenue. Moreover, its largest customer, Sony Ericsson, has sharply cut down its shipment.

Market Shares of Global Main Cell Phone Manufacturers by Revenue, 2009



Source: ResearchInChina

The cell phone design companies, once the best partners of cell phone platform vendors, have become completely different, and in strict sense, have disappeared. For instance, TechFaith Wireless, once the largest cell phone design company, the revenue in cell phone design sector just accounted for less than 2% in its total revenue in 2009. The products of cell phone design companies are no long design plans, but specific products, usually the package or cell phone, and the majority of cell phone design companies have pilot production line. Then cell phone manufacturers can concentrate on brand and sales since cell phone design companies have solved all problems in products. However, large-scale mass-production is still undertaken by veteran EMS manufacturers.

Table of Contents

- **1. Cell Phone Platform Industry**
- 1.1 Profile of Cell Phone Platform
- 1.2 Development Trends of Wireless Communication
- 1.3 Competition Patterns of Cell Phone Platform Vendors
- 1.4 Market Shares of Cell Phone Platform Vendors
- 1.5 Smart Phone Platform
- 1.6 Packaging of Baseband
- 1.7 TD-SCDMA
- 1.7.1 T3G
- 1.7.2 Leadcore Technology Co., Ltd
- **2. Cell Phone Market and Industry**
- 2.1 Global Cell Phone Market
- 2.2 Global Cell Phone Industry
- 2.3 China Cell Phone Market
- 2.4 China Cell Phone Export
- 2.5 China Cell Phone Industry
- **3. Cell Phone Manufacturers**
- 3.1 Nokia
- 3.2 Motorola
- 3.3 Samsung
- 3.4 SonyEricsson
- 3.5 LG
- 3.6 RIM
- 3.7 Apple
- 3.8 HTC
- 3.9 Platform Study of Chinese Cell Phone Manufacturers
- 3.9.1 K-Touch
- 3.9.2 Bird & Changhong
- 3.9.3 ZTE & Huawei
- 3.9.4 Lenovo, Haier, OPPO, Coolpad
- **4. Cell Phone Platform Vendors**
- 4.1 MediaTek
- 4.1.1 ADI Product Line

- 4.2 Qualcomm
- 4.3 TI
- 4.4 Freescale
- 4.5 Infineon
- 4.6 Broadcom
- 4.7 Spreadtrum
- 4.8 ST-ERICSSON
- 4.9 Marvell

- **5. Cell Phone Design Companies**
- 5.1 Techfaith Wireless
- 5.2 Longcheer
- 5.3 Sim Technology
- 5.4 Brighter Wireless
- 5.5 Others
- 5.5.1 Reach Technology
- 5.5.2 Huaqin Telecom

Selected Charts

- Basic Structure of Mobile Phone
- Market Shares of Major Mobile Phone Platform Vendors in the World, 2009 (by revenue)
- Market Shares of Major Mobile Phone Platform Vendors in the World, 2009 (by shipments units)
- Market Shares of Smart Phone Operating System, 2009-2011E
- Market Shares of Major Smart Phone Manufacturers in the World, 2009-2010
- Market Shares of Major Smart Phone Host Processor Manufacturers in the World, 2009-2010
- T3G Structure
- TD60291 Blog Diagram
- Global Shipment of CDMA/WCDMA Mobile Phones by Region, 2006-2010
- Global Shipment of Mobile Phones by Region, 2007-Q2 2009
- Market Shares of Major Mobile Phone Manufacturers in Mainland China, H1 2009
- China's Mobile Phone Export Volume, 1999-2008
- China's Mobile Phone Export Value, 2002-2008
- Shipment of Nokia's Mobile Phone by Region, Q1 2007-Q3 2009
- Shipment and Average Selling Prices of Nokia's Mobile Phone, Q1 2007-Q3 2009
- Shipment and Operating Profit Margin of Nokia's Mobile Phone, Q1 2007-Q3 2009
- Quarterly Shipment of Nokia's Mobile Phone in China, Q1 2006-Q3 2009
- Nokia's Mobile Phone Digital Baseband Providers, 2009
- Motorola's Mobile Phone Platform Providers, 2009
- Shipment and Annual Growth Rate of Samsung's Mobile Phone, 2001-2008
- Quarterly Shipment of Samsung's Mobile Phone, Q1 2006-Q3 2009

- AD6905 Block Diagram
- Geographical Distribution of New Clients Authorized by Qualcomm, Jan-Sep 2009
- QSD8250 Block Diagram
- Revenue of TI by Department, Q1 2007-Q3 2009
- Operating Profit Margin of TI by Department , Q1 2007-Q3 2009
- TI's Mobile Phone Baseband
- OMAPV1035 Block Diagram
- Freescale's Revenue by Product, 2006-2009
- Revenue of Infineon's Communications Sector, Q1 2008 –Q4 2009
- Infineon's Mobile Phone Sector
- XMM6130 System Framework
- Broadcom's Revenue by Department, Q1 2007-Q3 2009
- BCM2124 Block Diagram
- BCM21331 Block Diagram
- BCM2133 Block Diagram
- BCM2152 Block Diagram
- BCM21551 Block Diagram
- BCM2153 Block Diagram
- Revenue and Operating Profit Margin of Spreadtrum, 2004-2009
- Revenue and Gross Profit Margin of Spreadtrum, Q1 2007-Q3 2009
- Planning of Spreadtrum's EDGE Baseband Products
- Roadmap of Spreadtrum's 3G Baseband
- Solutions of Spreadtrum's SC6600V CMMB Mobile TV
- Multimedia Solution of Spreadtrum's Mobile TV
- Spreadtrum's Products
- Typical Applications of SC8800S

- Average Export Price and Operating Profit Margin of Samsung's Mobile Phone, Q1 2006-Q3 2009
- Samsung's Mobile Phone Platform Providers, 2009
- Shipment and Average Selling Prices of Sony Ericsson's Mobile Phone, Q1 2006-Q3 2009
- Revenue and Operating Profit Margin of Sony Ericsson's Mobile Phone, Q1 2006-Q3 2009
- Shipment and Annual Growth Rate of LG's Mobile Phone, 2001-2008
- Quarterly Shipment of LG's Mobile Phone (by Network), Q1 2007-Q3 2009
- Quarterly Sales Value and Operating Profit of LG's Mobile Phone, Q1 2007-Q3 2009
- Revenue of LG's Mobile Phone by Region, Q1 2007-Q3 2009
- Sales Value and Average Selling Prices of LG's Mobile Phone, Q1 2007-Q3 2009
- LG's Mobile Phone Platform Providers, 2009
- RIM's Best-selling Models, Oct 2009
- HTC's Revenue by Region, 2006-2008
- Shipment and Average Selling Prices of HTC, Q1 2008 -Q2 2009
- Revenue and Annual Growth Rate of HTC, Q1 2008 -Q2 2009
- Market Shares of Major Mobile Phone Platform Vendors in China, 2009
- Revenue and Gross Profit Margin of MediaTek, 2001-2010
- Revenue of MediaTek and Handset Shipment, 2006-2010
- Quarterly Revenue of MediaTek, Q1 2002-Q3 2009
- Monthly Revenue of MediaTek and Handset Shipment, Jan-Dec 2009
- MT6229 Block Diagram
- MT6253 Block Diagram
- ADI's TD-SCDMA Roadmap
- ADI TD-SCDMA System Framework

- QS3000 Block Diagram
- Revenue and Operating Profit Margin of ST-ERICSSON, Q1 2008 –Q3 2009
- ST-ERICSSON Roadmap
- U8500 System Framework
- U335 System Framework
- U365 System Framework
- U330 System Framework
- 6710 System Framework
- T7211 System Framework
- PNX6529 System Framework
- PNX6710 System Framework
- PNX6517 System Framework
- Revenue and Gross Profit Margin of TechFaith, 2004-2009
- Product Structure of TechFaith, 2006-2009
- Revenue and Gross Profit Margin of Longcheer, 2005-2009
- Revenue and Gross Profit Margin of Sim Technology, 2004-2009
- Processors and Operating Systems of 110 Smart Phones Launched in 2009
- Packaging Technology Development Forecast of World's Major Mobile Phone Baseband Vendors, 2008-2013
- Comparison of 12 Typical Baseband Packaging Modes
- Ranking of Global Mobile Phone Brands by Shipment, 2007-H1 2009
- Top 14 Mobile Phone Manufacturers in China by Output, H1 2008-H1 2009
- Top 32 Mobile Phone Manufacturers in China by Export Volume, H1 2008-H1 2009
- Nokia's Export Volume,2007-H1 2009
- Nokia's Output, 2007-H1 2009
- Nokia's 70 Typical Mobile Phone Basebands, 2009
- Nokia's Major Mobile Phone Platforms

- Export Volume and Output of Motorola China, 2007-H1 2009
- Motorola's 44 Mobile Phone Basebands, 2009
- Export Volume and Output of Tianjin Samsung, Huizhou Samsung and Samsung Kejian, 2007-2009
- Samsung's 55 Mobile Phone Basebands, 2009
- Export Volume and Output of Sony Ericsson China, 2006-H1 2009
- Mobile Phone Platform of Sony Ericsson
- Export Volume of LG Qingdao and LG Yantai, 2007-2009
- LG's 34 Mobile Phone Basebands, 2009
- HTC's 22 Mobile Phone Basebands, 2009 and Operating Systems
- K-TOUCH's 53 Mobile Phone Basebands, 2009
- Mobile Phone Sales Volume of Bird and Changhong, 2008-2009
- Typical Mobile Phone Basebands of Bird and Changhong, 2009
- Qualcomm's Seven Branches
- Financial Data of Qualcomm's Key Subsidiaries, 2008-2009
- Shipment and Market Shares of Qualcomm's Chips, 2002-2007
- Revenue of TI's Baseband Sector, Q1 2008-Q4 2009
- TI's Mobile Phone Platform
- Revenue of Freescale's Mobile Phone Sector, Q1 2006-Q3 2009
- Infineon's Basebands
- Broadcom 's Acquisition
- Broadcom's Mobile Phones
- Shipment of Spreadtrum's Baseband Chip, 2005-2008
- Shipment and Net Profit Margin of Longcheer's Mobile Phone, 2006-2009
- Handest Chipset Shipment of Sim Technology, 2004-2009
- Revenue, Shipment and Gross Margin of Sim Technology by Department, 2008- H1 2009

How to Buy

Product details			How to Order
	USD	File	By email: report@researchinchina.com
Single user	2,500	PDF	By fax: 86-10-82600829
Enterprisewide	3,800	PDF	By online: www.researchinchina.com
Publication date: Dec. 2009			
For more information, call our office in Beijing, China: Tel: 86-10-82600828 Website: www.researchinchina.com			