Abstract
The Chinese mobile phone industry has been flourishing and evidenced by an increasingly mature supply chain, concentrated 3G mobile phone market and the rise of low-priced smartphones. In addition, the issue of China’s homegrown 4G licenses is anticipated to trigger new cycles of growth in smartphones. And all players in the industry supply chain have vied with each other to gain traction. Chinese TD-SCDMA smartphones, in particular, recorded a shipment volume of nearly 100 million units in the first half of 2013 alone. This report touches on the development of Chinese homegrown mobile phone industry and its supply chain, further examining the product strategies of major IC solution providers, MediaTek and Spreadtrum.

by MIC International Research Team
# Table of Contents

1. Development of the Chinese Homegrown Mobile Phone Industry ................................................................. 1  
   1.1 Shipment Analysis for the First Half of 2013 .......................................................... 1  
   1.2 Development of Chinese Homegrown Mobile Phone Industry's Supply Chain ......................................... 4  

2. Development of Chinese Homegrown Mobile Phone Industry's Upstream IC Solution Suppliers ......................... 5  
   2.1 Key Factors for the Rise of MediaTek and Spreadtrum .................................................. 5  
   2.2 Product Development and Strategies of Spreadtrum ................................................. 7  
   2.3 Product Development and Strategies of MediaTek ................................................. 9  

Appendix ........................................................................................................................................ 12
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Chinese 3G Mobile Phone Shipment Share by Technology Type, 1H 2013</td>
<td>2</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Chinese Mobile Phone and Smartphone Shipment Share by Branded Vendor, 1H 2013</td>
<td>2</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Chinese Smartphone Shipment Share by Panel Size</td>
<td>3</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Chinese Smartphones’ Adoption Share of Phone Camera, Wi-Fi Connection, and GPS, 1H 2013</td>
<td>3</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Chinese TD-SCDMA Subscriber Market, January 2013 - June 2013</td>
<td>4</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Chinese Mobile Phone Manufacturing Bases: First and Second Tier Makers</td>
<td>5</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Key Determining Factors for Chinese Consumers when Purchasing Smartphones in 2013</td>
<td>6</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Chinese and China-made Smartphone ASP, January 2013 – June 2013</td>
<td>6</td>
</tr>
<tr>
<td>Figure 9</td>
<td>The Number of Smartphone Models Launched by Lenovo, Huawei, OPPO, and Xiaomi by Price Point</td>
<td>7</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Spreadtrum's Headquarters, R&amp;D Centers, and Worldwide Deployments</td>
<td>8</td>
</tr>
<tr>
<td>Figure 11</td>
<td>China Mobile's TD-SCDMA and TD-LTE Product Plan for 2014</td>
<td>9</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Spreadtrum's TD-SCDMA and TD-LTE Product Portfolios</td>
<td>9</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Spreadtrum's Product ASP and Integrated Product Features</td>
<td>9</td>
</tr>
</tbody>
</table>
List of Tables

Table 1  The Supply Chain and Suppliers of the Chinese Mobile Phone Industry ................................................................. 5
1. Development of the Chinese Mobile Phone Industry

In the past few years, the Chinese homegrown mobile phone industry has been growing faster than ever, fueled mainly by the revamp in production technology and the uptake in the downstream market demand. Even during the period 2009 to 2010, the outbreak of global financial crisis, the Chinese homegrown industry continued to prosper steadily as the domestic economy moved into expansion.

Meanwhile, Google's Android ecosystem featuring an open-source system grew in size well in 2011 and in the beginning of 2012, encouraging a bunch of vendors to pour more money into breeding the supply chain of Chinese mobile phone industry. The proliferation of entrants in this industry has not only lowered operating margins but also intensified the competition.

1.1 Shipment Analysis for the First Half of 2013

In the first half of 2013, shipment volume of the Chinese mobile phone industry - comprising of mobile phones manufactured by Chinese mobile phone brands and by international brands in China - hit approximately 291 million units, up 44.7% year-on-year. Of the total mobile phone shipments in the first half of 2013, 214 million were contributed by smartphones, representing 120.5% growth compared to the first half of 2012 and accounting for 73.7% of the total Chinese mobile phone shipments. This indicates that the high growth momentum of the industry in 2012 continued well into 2013.
Figure 1  Chinese 3G Mobile Phone Shipment Share by Technology Type, 1H 2013

- CDMA2000: 21.8%
- TD-SCDMA: 48.4%
- WCDMA: 29.8%

Source: TENAA (Telecommunication Equipment's Network Access Managements), compiled by MIC, December 2013

Figure 2  Chinese Mobile Phone and Smartphone Shipment Share by Branded Vendor, 1H 2013

Source: TENAA, respective companies, compiled by MIC, December 2013
Figure 3  Chinese Smartphone Shipment Share by Panel Size

Source: TENAA, compiled by MIC, December 2013

Figure 4  Chinese Smartphones’ Adoption Share of Phone Camera, Wi-Fi Connection, and GPS, 1H 2013

Source: TENAA, compiled by MIC, December 2013
1.2 Development of Chinese Homegrown Mobile Phone Industry's Supply Chain

Source: The TD Industry Alliance, compiled by MIC,
## Table 1: The Supply Chain and Suppliers of the Chinese Mobile Phone Industry

<table>
<thead>
<tr>
<th>Name of the Company</th>
<th>Cost Percentage</th>
<th>Profit Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semiconductor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging and Testing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IC Solution</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseband Processor, RF, Application Processor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Key Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camera Module</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Camera Lens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- IR Filter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustic Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connector &amp; Antenna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chassis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ODM/OEM:**

Source: MIC, December 2013

## Figure 6: Chinese Mobile Phone Manufacturing Bases: First and Second Tier Makers

Source: MIC, December 2013

### 2. Development of Chinese Homegrown Mobile Phone Industry’s Upstream IC Solution Suppliers

#### 2.1 Key Factors for the Rise of MediaTek and Spreadtrum
Figure 7  Key Determining Factors for Chinese Consumers when Purchasing Smartphones in 2013

Source: CNNIC, compiled by MIC, December 2013

Figure 8  Chinese and Chinese Homegrown Smartphone ASP, January 2013 - June 2013

Note: Chinese smartphone ASP denotes the average price of Chinese homegrown smartphones and smartphones made by international brands in China
Source: Respective companies, compiled by MIC, December 2013
Figure 9  The Number of Smartphone Models Launched by Lenovo, Huawei, OPPO, and Xiaomi by Price Point

Note: US$1 = 6.08 RMB
Source: Respective companies, compiled by MIC, December 2013

2.2 Product Development and Strategies of Spreadtrum
Figure 10  Spreadtrum’s Headquarters, R&D Centers, and Worldwide Deployments

Source: Spreadtrum, compiled by MIC, December 2013
2.3 Product Development and Strategies of MediaTek
Figure 14  MediaTek's Shipment Volume and Product Mix in 2013

Source: MediaTek, compiled by MIC, December 2013

Figure 15  MediaTek's Smartphone Product Roadmap

Source: MediaTek, compiled by MIC, December 2013
Table 16: Qualcomm's Smartphone Product Roadmap

<table>
<thead>
<tr>
<th>Year</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
</tbody>
</table>

Source: Qualcomm, compiled by MIC, December 2013
Appendix
Glossary of Terms

IDM Integrated Device Manufacturer
IEEE Institute of Electrical and Electronics Engineers
BOM Bill of Materials
CDMA Code Division Multiple Access
CPU Central Processing Unit
EDGE Enhanced Data rate for GSM Evolution
FDD-LTE Frequency Division Duplexing-LTE
GPRS General Packet Radio Service
GPS Global Positioning System
GSM Global System and Mobile Communications
HD High Definition
IoT Internet of Things
LTE Long Term Evolution
NFC Near Field Communications
OS Operating System
RF Radio Frequency
TD-LTE Time Division-Long Term Evolution
TD-SCDMA Time Division-Synchronous Code Division
Multiple Access
WCDMA Wideband Code Division Multiple Access
Wi-Fi Wireless Fidelity
List of Companies

AAC Technologies
Ainsun
Amoi
Anhui Huatian
Apanda
AUX
BBK
Bird
BOE
Cafephone
Captiel
CECT
China Netcom
China Telecom
China Unicom
COKI
Conor
CoolPad
Coslight Technology
Desay
Dongguan EON
Doov
EBEST
Everwin Precision
Everwin Precision
Fastprint
Galaxycore
GaoXinqi
Gettop Acoustic
Gfive
Ginoee
Gnote
GoerTek
GooPhone
Guangdong Goworld
HILIVE
Hisense
Hisilicon
Huizhou Speed Wireless
Innos
IVT
Janus
JCET
Jiangsu Changjiang Electronic Technology
Jianyu
Konka
Koobee
K-Touch
Laibao Hi-Tech
Leadcore
Lenovo
Luxshare-ICT
Meizu
Moral
Newsmy
NFME
Nantong Fujitsu Microelectronics
O-film
Samhave
Simtelep
Skyworth
SMIC
SNDA
Spreadtrum
Success Electronics
Sunlord Electronics
Sunny Optical
Sunway Communication
Sunwoda
Taiyo Yuden
TCL
Telecommunication Equipment’s Network Access Managements

TENAA
THL
Tianma Micro
Token Science
Truly Semi
TWS
U9mobile
Unitone
WUS Printed Circuit
Xiaomi
Zdreal
Zhejiang Crystal-Optech
ZOPO
ZTE
For more information
Service Hotline +886.2.23782306
Fax +886.2.27321351
E-mail Address csmic@iii.org.tw
Web Address http://mic.iii.org.tw/english

© Copyright 2013 Market Intelligence & Consulting Institute, a division of Institute for Information Industry. All rights reserved. Reproduction of this publication without prior written permission is forbidden. The content herein represents our analysis of information generally available to the public or communicated to us by knowledgeable individuals or companies, but is not guaranteed as to its accuracy or completeness.