Global and China Memory Industry Report, 2014-2015

May 2015

ResearchInChina
www.researchinchina.com

STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Copyright 2012 ResearchInChina

Abstract

Global and China Memory Industry Report, 2014-2015 covers the followings:

1. Memory technology trends
2. Memory market
3. Memory industry
4. 19 typical memory industry chain vendors

After two years of recession, the global memory market went forward by leaps and bounds in 2013-2014, with scale up more than 20% for two consecutive years i.e. 20.5% in 2013, 22.1% in 2014, the highest growth rate among all semiconductor products. In 2015, the growth rate slows evidently, only 2.3%, and the memory market size is expected to reach USD83.8 billion.

Causes for the decline in growth rate are the followings. The first comes to the falling prices of DRAM. DRAM price began to rise from October 2012, a trend lasting till June 2014, resulting in increased supply and a balance between supply and demand. However, spot prices of DRAM started falling in July 2014.

Memory Industry Chain

	Vendor Representatives
Memory Die	Samsung, SK Hynix, Micron, Macronix
Memory Chip Package and Test	PTI, FATC, ChipMOS, Walton
Memory Modules	Kingston, ADATA, Ramaxel, Crucial, Smart Modular, Phison
Memory Design	ESMT, Etron, ISSI
Memory Foundry	SMIC, HHGRACE, UMC

Memory Vendor Rankings by Revenue, 2013-2015 (USD mln)

	2013	2014	2015E
SAMSUNG	21,653	27,844	30,331
HYNIX	13,379	16,264	18,544
MICRON	11,918	16,278	18,026
TOSHIBA	7,316	6,966	7,098
SANDISK	5,692	6,076	6,118
INOTERA	1,982	2,718	2,616
INTEL	2,013	2,178	2,016
NANYA	1,579	1,617	1,683
MACRONIX	746	738	746
WINBOND	1,113	1,251	1,395
CYPRESS	339	348	1,088
SPANSION	645	630	

Copyright 2012ResearchInChina

Second, the demand dropped. Smartphone growth slowed down, the shipment of tablet PC dived and that of desktop PC fell as well. As the world is just stuck in an ill-defined "economic recovery", China's economy has seen a slowdown in growth rate, with a sharper decline to occur in its demand in 2016, and so will smartphones then. With the commissioning of new capacities of major memory vendors, especially in the NAND field, the price will fall more than expected. The memory industry will probably suffer another recession in 2016, down 3.1%.

The memory industry can be divided into two camps: South Korean camp and Japanese/American/Taiwanese camp. Taiwan has good scientific research base, enjoying a sound relationship with Japan; technologically supported by the latter for a long time, Taiwan has the most complete industry chain of memory, especially in packing & testing, it sometimes helps South Korean peers. Japan boasts the most advanced technology but lacks strong financial support, mostly in association with US companies, and the two are willing to cooperate with Taiwanese companies. Japan, the United States and Taiwan formed an alliance – Toshiba with SanDisk, and Micron with Formosa Plastics. South Korean vendors still fade next to Japanese ones e.g. Samsung pays an about 3% patent fee to Toshiba each year, but they are competitive in financial strength and production technology.

Mainland China has been the world's largest memory market, annually importing memory worth tens of billions of dollars from South Korea. China is trying to change this situation but beset with difficulties. The basic industry and basic scientific research strength are relatively backward in Chinese Mainland, even falling behind Taiwan by more than 10 years in field of semiconductor. Since the rate of return on industry is far lower than the monetary speculation, companies in the mainland are keen on capital operation instead of industrial investment. Chinese mainland enterprises may have some achievements in NorFlash sector from which large companies have retreated, but it is hard to make a big breakthrough in DRAM and NAND.

Currently, most of the new technical memories have low capacity, or else they may face bottlenecks of high costs and poor reliability when capacity is raised. It is projected that traditional DRAM and NAND will still occupy the dominant position from 2020 to 2025, NorFlash or SRAM may be replaced by new technologies in the low-capacity memory field. STT-MRAM now moves up fastest in commercialization. Everspin had shipped 40 million STT MRAM before October 2014. Since then, it worked with GlobalFoundries in making STT MRAM (40 nm technology).

Intel, IBM, Samsung, SK Hynix and Qualcomm are developing MRAM storage technology while Japanese companies are pretty competitive in this area. In addition to Toshiba, TDK is also an important participant who showcased MRAM wafer with practical performance demonstration at CEATEC JAPAN for the first time.

Copyright 2012ResearchInChina

Table of contents

1. Memory Technology Trends
1.1 TLC
1.2 3D NAND
1.3 Emerging NVM

2. Memory Market
2.1 Global Memory Market
2.2 DRAM Supply & Demand
2.3 NAND Supply & Demand
2.4 Global Mobile Phone Market and Industry
2.5 China Mobile Phone Market
2.6 Notebook Computer Market
2.7 Tablet PC Market
2.8 Server
2.8.1 Server Market
2.8.2 Server Industry
2.9 Enterprise SSD Market

3. Memory Industry
3.1 Memory Industry Chain
3.2 Memory Vendor Market Share
3.3 Memory Vendor Rankings
3.4 NorFlash Vendor Market Share
3.5 Chinese Mainland Vendors Beset with Difficulties into Mainstream Memory Areas

4. Memory Vendors
4.1 SAMSUNG
4.2 SK HYNIX
4.3 MICRON
4.4 INOTERA
4.5 NANYA TECHNOLOGY
4.6 SANDISK
4.7 MACRONIX
4.8 ESMT
4.9 ETRON
4.10 ISSI
4.11 WINBOND ELECTRONIC
4.12 CYPRESS
4.13 GIGADEVICE
4.14 TOSHIBA

5. Memory Industry Chain Vendors
5.1 PTI
5.2 CHIPMOS
5.3 FATC
5.4 ADATA
5.5 SILICON MOTION

Selected Charts

- Classification of Memory
- Comparison between Various Types of Memory
- Emerging NVM Time to Market by Application, 2014-2020
- Comparison of Emerging Memory and Established Memory
- Global Memory Market Size, 2009-2016E
- Global Memory Market by Type, 2014
- Automotive Memory Market Size, 2008-2015
- Automotive Memory Market by Technology, 2010-2015
- DRAM Industry CAPEX, 2008-2015
- DRAM Oversupply Ratio, 2013-2016
- DRAM Demand by Devices, 2013-2015
- DRAM GB/SystemDRAM GB/System, 2013-2015
- DRAM Oversupply Ratio, Q1/2014-Q4/2016
- NAND Industry CAPEX, 2008-2015
- Global Mobile Phone Shipments, 2007-2015
- Global 3G/4G Mobile Phone Shipments by Region, 2011-2014
- Worldwide Smartphone Sales to End Users by Vendor in 2014 (Thousands of Units)
- Worldwide Smartphone Sales to End Users by Operating System in 2014 (Thousands of Units)
- Shipments of Top 10 Mobile Phone Vendors Worldwide, 2014
- Monthly Shipments of China Mobile Phone Market, Jan 2013-Dec 2014
- Market Share of Major Smartphone Vendors in China, 2014
- Market Share of Major 4G Mobile Phone Vendors in China, 2014
- Notebook Computer Shipments, 2008-2015
- Shipments of Major Notebook ODM Vendors Worldwide, 2010-2014
- Global Tablet PC Shipments, 2011-2016E

Selected Charts

- Shipments of Top 5 Tablet PC Vendors, Q4/2014
- Shipments, Market Share and Growth of Top 5 Tablet PC Vendors, 2014
- Global Server Market Size, 2013-2018E
- Top 5 Corporate Family, Worldwide Server Systems Factory Revenue, 2013
- Top 5 Corporate Family, Worldwide Server Systems Factory Revenue, Q4/2014
- Worldwide: Server Vendor Shipments, Q4/2014 (Units)
- Worldwide: Server Vendor Revenue, Q4/2014 (U.S. Dollars)
- EMEA Server Vendor Revenue, Q4/2014 (U.S. Dollars)
- EMEA Server Shipment, Q4/2014 (Units)
- Market Share of Server Brand Vendors Worldwide, 2015
- Market Share of Server OEMs Worldwide, 2015
- Supply Relationship between OEMs and Server Brand Vendors
- Memory Industry Chain
- Market Share of Branded DRAM Vendors, Q1-Q4/2014
- Market Share of Branded NAND Vendors, Q1-Q4/2014
- Market Share of Mobile DRAM Vendors, Q1-Q4/2014
- Memory Vendor Rankings by Revenue, 2013-2015
- Revenue and Operating Margin of Memory Design Companies
- Operating Margin of Major Memory Vendors, 2013-2014
- Market Share of Major NorFlash Vendors, 2012
- Market Share of Major NorFlash Vendors, 2014
- Revenue and Operating Margin of Samsung Memory Division, 2010-2015
- Revenue Breakdown of Samsung Memory Division by Product, 2010-2015
- Revenue Breakdown of Samsung Memory Division by Application, 2014
- Samsung DRAM/NAND Operating Margin, 2010-2015

Selected Charts

- Samsung DRAM Shipments, 2012-2015
- Samsung DRAM ASP, 2012-2015
- Samsung DRAM Fab Input (12inch Wafer), 2013-2015
- Samsung NAND Shipments, 2012-2015
- Samsung NAND ASP, 2012-2015
- Samsung NAND Fab Input (12inch Wafer), 2013-2015
- Samsung System LSI Revenue vs Operating Margin, 2010-2015
- SK Hynix Revenue vs Operating Margin, 2008-2015
- SK Hynix EBITDA vs Net Margin, Q1/2013-Q4/2014
- SK Hynix Assets vs Liabilities, 2008-2014
- SK Hynix Revenue Mix by Product, 2008-2014
- SK Hynix Revenue Mix by Application, Q1/2015
- SK Hynix DRAM Shipments vs ASP, 2013-2016
- SK Hynix NAND Shipments vs ASP, 2013-2016
- Micron Revenue vs Operating Margin, FY2008-FY2015
- Micron Revenue vs Net Income, FY2008-FY2015
- Micron Revenue Mix by Segment, FY2012-FY2015
- Micro Gross Margin by Segment, FY2012-FY2015
- Micron Revenue Mix by Location, FY2012-FY2015
- Micro Customers
- Micron Roadmap
- Inotera Revenue vs Gross Margin, 2008-2015
- Inotera Balance Sheet & Key Indices, Q1/2015
- Inotera Cash Flow, Q1/2015
- Inotera Monthly Revenue, Mar 2013-Mar 2015

Selected Charts

- Framework of Nanya, Micron & Inotera
- Nanya Revenue vs Gross Margin, 2008-2015
- Nanya Quarterly Revenue vs Gross Margin, Q2/2012-Q1/2015
- Nanya Mix by Application, Q1/2013-Q1/2015
- Nanya Mix by Application, 2012-2015
- Nanya CAPEX, 2011-2015
- Nanya Shipments, 2011-2015
- SanDisk Revenue vs Gross Margin, 2009-2015
- Sandisk Revenue Mix by Application, 2009-2015
- SanDisk Revenue by Location, 2011-2013
- Macronix Organization
- Macronix Revenue vs Gross Margin, 2008-2015
- Macronix Revenue by Segment, 2013-2015
- Macronix ROM Shipments, Q1/2011-Q1/2015
- Macronix ROM Revenue Mix by Tech, 2013-2015
- Macronix NOR Shipments, Q1/2011-Q1/2015
- Macronix NOR Revenue Mix by Tech, 2013-2015
- Macronix NOR Revenue Breakdown, Q1/2015
- Macronix SLC NAND Shipments, 2013-2015
- ESMT Revenue vs Gross Margin, 2009-2015
- ESMT Monthly Revenue, Mar 2013-Mar 2015
- Etron Revenue vs Gross Margin, 2009-2015
- Etron Monthly Revenue, Mar 2013-Mar 2015
- ISSI Revenue vs Gross Margin, 2008-2015
- ISSI Revenue by Segment, 2014
- ISSI Customers
- ISSI Revenue by Product, FY2009\FY2014
- ISSI Automotive Market Revenue, FY2009\FY2014

Selected Charts

- Winbond Organization
- Winbond Revenue vs Gross Margin, 2009-2015
- Winbond Quarterly Revenue vs Gross Margin, Q2/2013-Q1/2015
- Winbond Revenue by Application, 2014-2015
- Winbond Revenue by Geometry, 2013-2015
- Winbond CAPEX, 2010-2015
- Winbond Revenue by Segment, 2011-2015
- Cypress Revenue vs Operating Margin, 2007-2014
- Cypress Revenue by Business, 2009-2014
- Cypress Revenue by Region, 2009-2014
- Spansion Revenue vs Gross Margin, 2009-2013
- Spansion Revenue by Region, 2011-2013
- New Cypress Revenue by Application
- GigaDevice Balance Sheet, 2011-2013
- GigaDevice Revenue vs Operating Income, 2011-2013
- GigaDevice Cash Flow, 2011-2013
- GigaDevice Financial Indicators, 2011-2013
- GigaDevice Customer Distribution, 2013
- GigaDevice Supplier Distribution, 2013
- Toshiba Revenue by Segment, FY2011-FY2015
- Toshiba Electronic Devices & Components Segment Revenue by Product, FY2011-FY2015
- PTI Organization
- PTI Revenue vs Gross Margin, 2008-2015
- PTI Monthly Revenue, Mar 2013-Mar 2015
- PTI Revenue Mix by Application, Q1/2014-Q1/2015
- ChipMOS Revenue vs Gross Margin, 2003-2014
- ChipMOS Revenue vs Operating Margin, 2009-2014

Selected Charts

- ChipMOS Revenue by Business, 2010-2014
- ChipMOS Revenue by Product, 2010-2014
- ChipMOS Utilization Rate vs EBITDA Margin, 2010-2014
- ChipMOS Cash Flow and CAPEX, 2009-2014
- ChipMOS Roadmap, 2014-2016
- ChipMOS Technology Development & Business Alignment
- Formosa Plastics Organization
- FATC Organization
- FATC Revenue vs Operating Margin, 2006-2015
- FATC Revenue vs Gross Margin, 2009-2015
- FATC Monthly Revenue, Mar 2013-Mar 2015
- ADATA Revenue vs Gross Margin, 2008-2015
- ADATA Monthly Revenue, Mar 2013-Mar 2015
- ADATA Revenue by Segment, 2011-2015
- ADATA Worldwide
- SIMO Revenue vs Gross Margin, 2010-2015

ResearchInChina

The Vertical Portal for China Business Intelligence

How to Buy

You can place your order in the following alternative ways:

1.Order online at www.researchinchina.com

2.Fax order sheet to us at fax number:+86 10 82601570

3. Email your order to: report@researchinchina.com

4. Phone us at +86 10 82600828/ 82601561

Party A:			
Name:			
Address:			
Contact Person:		Tel	
E-mail:		Fax	

Party B:			
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)		
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080		
Contact Person:	Liao Yan	Phone:	86-10-82600828
E-mail:	report@researchinchina.com	Fax:	86-10-82601570
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidian District,Beijing Bank Account No #: 110060668012015061217 Routing No # : 332906 Bank SWIFT Code: COMMCNSHBJG		

Title	Format	Cost
Total		

Choose type of format

PDF (Single user license) ……..2,100 USD

Hard copy …… 2,300 USD

PDF (Enterprisewide license)…..... 3,300 USD

※ Reports will be dispatched immediately once full payment has been received. Payment may be made by wire transfer or credit card via PayPal.

ResearchInChina

www.researchinchina.com

RICDB service

About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- ***Multi-users market reports***
- ***Database-RICDB***
- ***Custom Research***
- ***Company Search***

RICDB (http://www.researchinchina.com/data/database.html), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at:

Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080
Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com