

***Worldwide Memory Market  
Forecasts***

***2009-2013***

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## **Chapter 1**

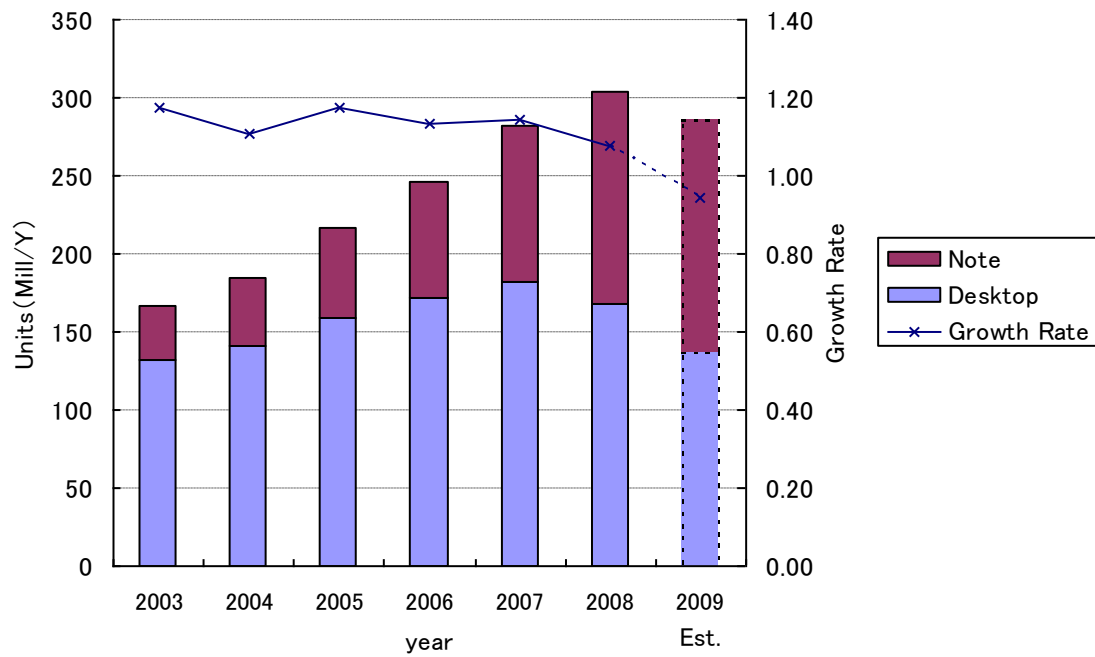
# **Application of Memories**

## Chapter 1 - Application of Memories

### 1. PC

#### 1) Total

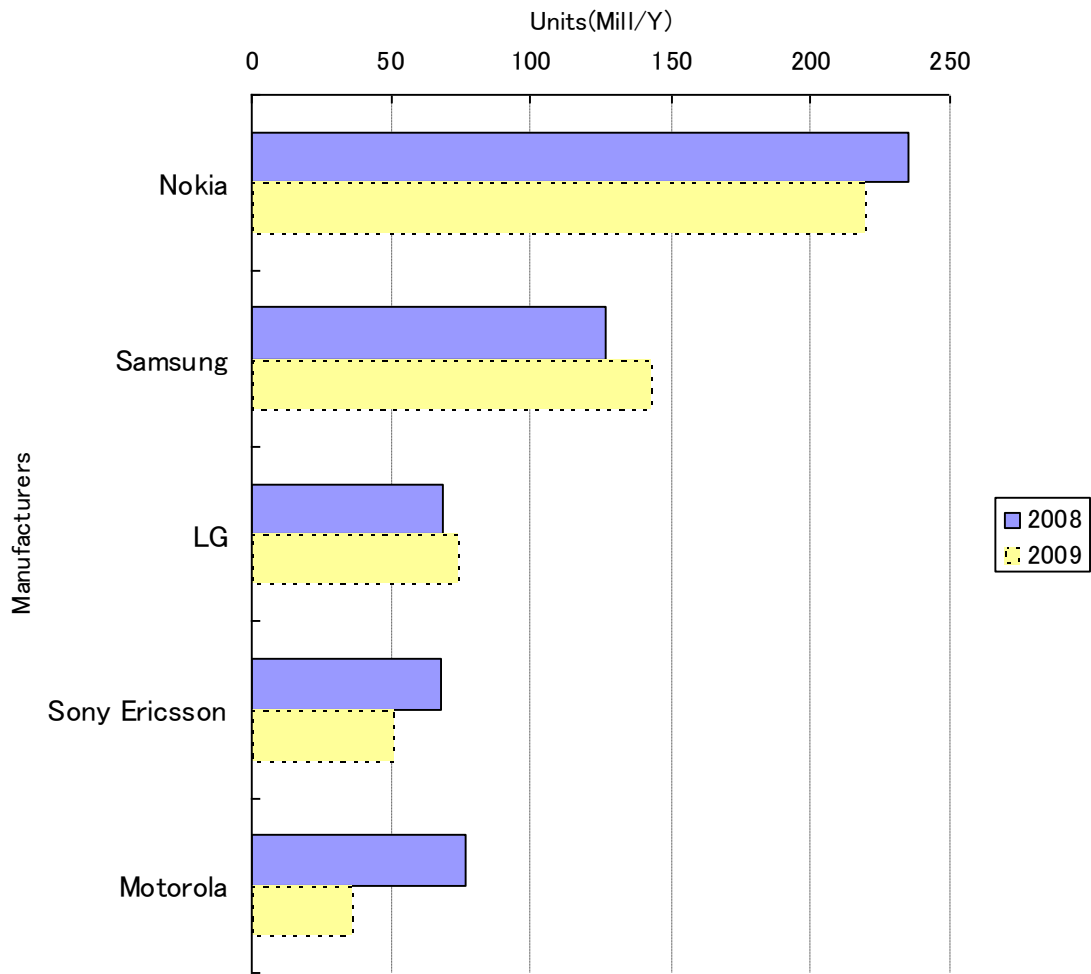
**Fig1- 1 PC Production**



Notes) Forecast in 2009.

Desktop includes motherboards for desktop PC.

**Fig1- 2 Quarterly PC Production by Models**



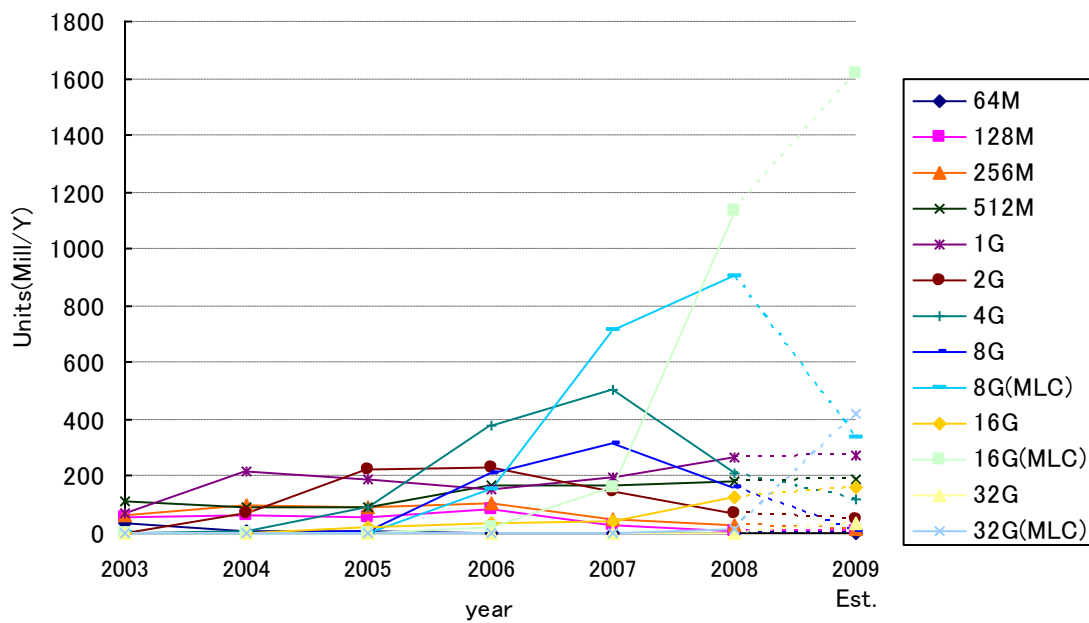
Notes) Forecast in 2009.

**Chapter 2**  
**LSI Memories**

## Chapter 2 - LSI Memories

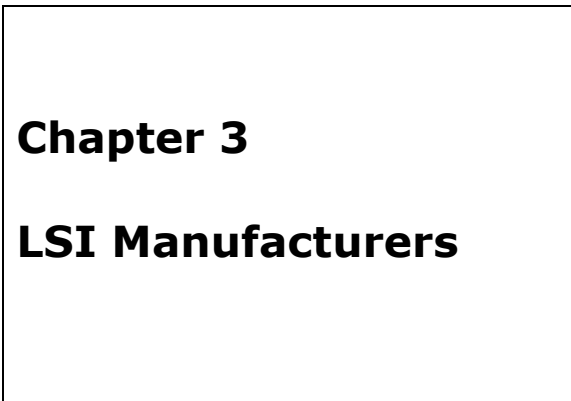
### 1. Flash Memory

**Fig2- 1 NAND Flash Memory Production by Capacity**



Notes) Forecast in 2009.

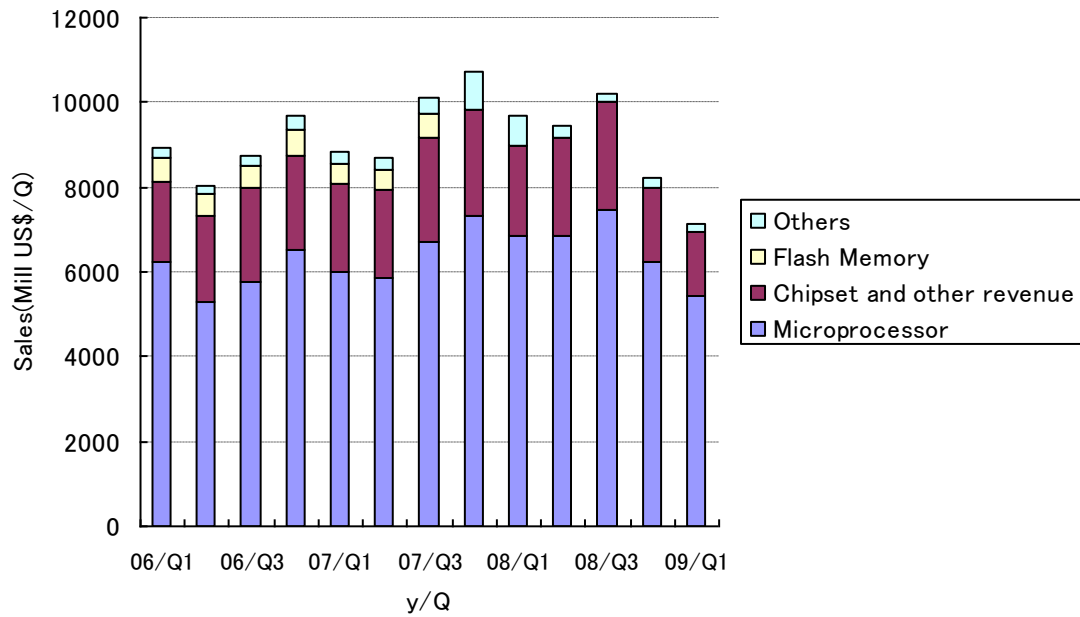
**Fig2- 2 Quarterly NAND Flash Memory Production by Capacity**



## Chapter 3 LSI Manufacturers

### 1. Intel

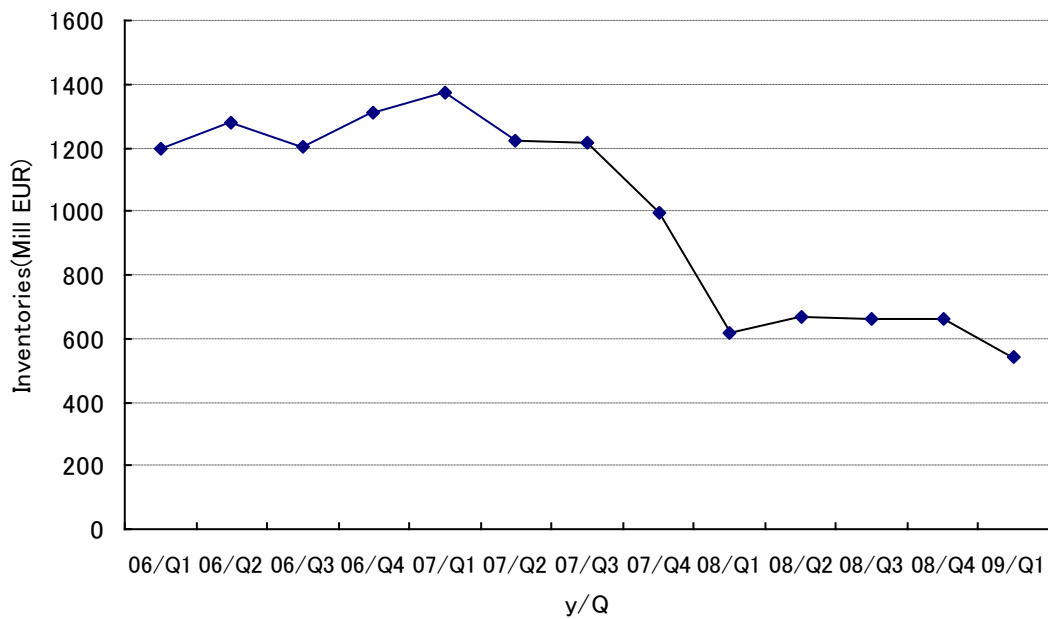
**Fig3- 1 Intel's Sales by Products**



Notes) Source: Intel.

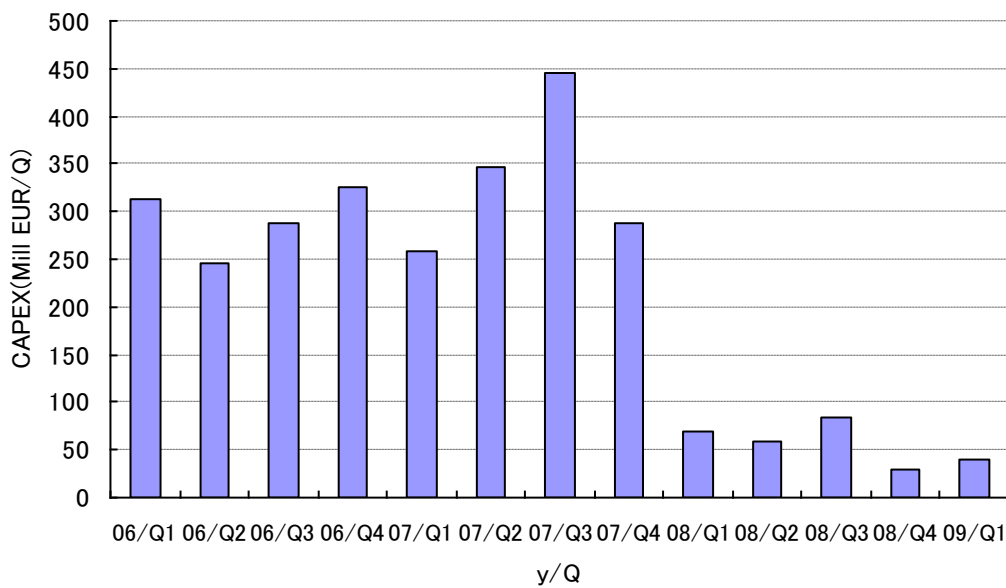
Others includes Flash Memory from 07/Q4 and excludes from 08/Q2.

**Fig3- 2 Infineon Technologies' Inventories**



Notes) Source: Infineon Technologies.  
Includes Qimonda's Inventories until 2007/Q4.  
Quarter end.

**Fig3- 3 Infineon Technologies' CAPEX**



Notes) Source: Infineon Technologies.  
Includes Qimonda's CAPEX until 2007/Q4.

**Chapter 4**  
**Demand Simulation**

## Chapter 4 - Demand Simulation

### 1. Simulation Model

This chapter estimates IC demand until 2013. Especially NAND Flash Memory and DRAM demand are estimated by setting preconditions, shipments of Electronic appliances and memory capacity of Electronic appliances.

#### 1) Simulation

The simulation has three steps.

##### <Step1: Setting preconditions>

Setting shipment of Electronic appliances and memory capacity of Electronic appliances as preconditions. Especially NAND Flash Memory, setting shipment of Electronic appliances with card slot to simulate memory card demand.

##### <Step2: Simulate memory demand by Electronic appliances>

Simulating memory demand by shipment of Electronic appliances and memory capacity of Electronic appliances.

##### <Step3: Sum memory demand>

After simulating memory demand of all Electronic appliances, summing memory demand of all Electronic appliances.

## 2) Preconditons

**Tab4- 1** shows Units of Electronic Appliances of NAND Flash Memory. **Erreur ! Source du renvoi introuvable.** shows Memory Capacity of Electronic Appliances of NAND Flash Memory. **Erreur ! Source du renvoi introuvable.** shows Units of Electronic Appliances of DRAM. **Erreur ! Source du renvoi introuvable.** shows Memory Capacity of Electronic Appliances of DRAM.

**Tab4- 1 Units of Electronic Appliances of NAND Flash Memory (K Units/Y)**

## 1) Electronic Appliances of NAND Flash Memory

## (1)Cellular

	2008	2009	2010	2011	2012	2013
GSM Cellular	777000	680000	600000	580000	560000	540000
CDMA Cellular	150000	140000	110000	100000	95000	90000
WCDMA Cellular	220000	280000	550000	640000	720000	750000
Other Cellular	10000	5000	2000	0	0	0
PHS	8000	7000	6000	5000	4000	2000
Total	1165000	1112000	1268000	1325000	1379000	1382000

## (2)Digital Audio

	2008	2009	2010	2011	2012	2013
Digital Audio	126000	115000	127000	132000	137000	138000

## (3)PC

	2008	2009	2010	2011	2012	2013
Desktop PC	168000	138000	125000	117000	110000	105000
Note PC	132000	146500	180000	210000	235000	255000

## (4)Others

	2008	2009	2010	2011	2012	2013
DSC	140000	130000	138000	143000	147000	148000
DVC	17500	17000	18000	19000	20000	20500
STB	85000	85000	85000	85000	85000	85000
MFP	22000	20000	21000	23000	26000	28000
PDA	5000	4000	3500	3000	2500	2000
Navigation	8000	7000	7500	8000	8500	9000
PND	40000	38000	44000	50000	52000	54000

## 2)USB Stick

	2008	2009	2010	2011	2012	2013
USB Stick	330000	300000	335000	340000	342000	345000

