

# 2009 Wireless Semiconductors

---

Semiconductor Applications Markets – Worldwide



# 2009 Wireless Semiconductors

---

Semiconductor Applications Markets – Worldwide

Susie Inouye

Myson Robles-Bruce

Matt Scherer

Publication Number: 09SemiApps-Wireless

June 2009

© 2009 **databeans** Incorporated

Reno, NV 89523

Phone: 775.624.6200

[www.databeans.net](http://www.databeans.net)

---

## Abstract

Wireless semiconductors are utilized in a very diverse range of application markets. Mobile handsets and wireless infrastructure together account for roughly 85 percent of consumption, yet other applications, such as those built upon the short range wireless standards, are growing strongly as well. These other applications include automotive GPS/telematics security systems, cordless phones, two-way radio, NFC payment terminals, medical patient monitoring, and others.

Memory is the largest and fastest growing general purpose product category with \$6.2 billion in sales projected in 2009 as the latest mobile handsets require more advanced memory in the form of Flash primarily, with some consumption of DRAM and SRAM as well. Other major product categories include optoelectronics, which primarily come in the form of LEDs for phone displays and image sensors used in camera phones, as well as standard linear, which includes interface, amplifiers, data converters, and power ICs. Multimarket semiconductors are projected to account for \$19.4 billion or 47 percent of wireless sales.

Other categories include application specific integrated circuits or ASSPs and ASICs that are only found in certain applications. Wireless specific semiconductor products include wireless discretes (RF Diodes, RF small signal transistors, and RF power transistors), RF analog (PAs, LNAs, and Transceivers), digital baseband products, and special purpose wireless microcontrollers. Logic and analog are projected to remain the two largest wireless ASSP markets in 2009, accounting for \$9.4 billion and \$7.6 billion respectively.

This study is available through individual report purchase for **\$3,200.00 USD**, or available at a discounted rate through our **Databeans Complete Library**, the **Semiconductor Markets Service**, our **Communications Market Service**, or the **Semiconductor Applications Service**. For more information on any of our fine services, please go to our Website at [www.databeans.net/services.php](http://www.databeans.net/services.php). For our subscription service subscribers, all of our research is backed by a coverage guarantee meaning if you purchase a report and need additional information, our analysts are available to continue the analysis, customized to your organization's needs.

## ABOUT DATABEANS

---

Databeans, Inc., headquartered in Reno, Nevada, USA, is an internationally recognized market research firm focused on the semiconductor and electronics industry. Databeans publishes over 50 market research reports annually that are available for purchase as individual studies, or bundled together in cost-saving subscription services. Databeans' detailed quality studies, industry leading customer service, and unparalleled responsiveness are unmatched in the electronics market research industry.

## BENEFITS OF A SUBSCRIPTION SERVICE WITH DATABEANS:

---

### **Databeans will become an extension of your group**

For our subscription services clients, Databeans will help with presentations, fact-finding inquiries, and essentially any project that internal groups may not have the time or resources to accomplish.

### **Inquiry hours**

All our subscription services includes inquiry hours, allowing clients to take full advantage of our analysts for contribution to internal marketing and business planning.

### **Corporate-wide site licensing**

We encourage our clients to post our reports on their internal website, at no additional cost. This allows for maximum visibility and value of Databeans data and reports within your company.

### **Work within your budget**

We can create any type of payment plan that you desire. Call us to see which options will work best for your group or company.

### **Ease of doing business**

By ordering once a year, your company will automatically receive the reports or services ordered when they first become available.

### **Additional Savings**

- Our minimum discount with our smaller services is about 20% off list price, while our full service customers save about 40% off list price.
- The Databeans Complete Library includes our Semiconductor Application Demand Model and Market Share Database, free.
- Enjoy any Databeans service and your company qualifies for a 20% discount on any non-subscription report Databeans publishes.

For more information, please contact us at 775.624.6200 or visit our website at [www.databeans.net](http://www.databeans.net).

---

# Table of Contents

Significant Findings .....	1
Introduction.....	1
Wireless Devices .....	4
Regional Forecast.....	9
Americas .....	12
Europe .....	14
Japan.....	16
China .....	18
Other Asia .....	20
Korea .....	20
Taiwan.....	21
India .....	21
Application Consumption Analysis .....	23
Mobile Phones.....	25
Infrastructure .....	29
Short Range.....	33
Wi-Fi .....	35
Bluetooth.....	35
ZigBee.....	36
Other Wireless .....	37
Product Forecasts .....	39
Optoelectronics .....	41
Diodes.....	42
Small Signal Transistors .....	43
Power Transistors .....	44
Power Amplifiers .....	45
RF Analog .....	46
Standard Analog.....	48
DSP .....	49
Microcontrollers .....	51
Application Processors .....	52
Logic.....	53
Memory .....	55
Supplier Market Share .....	57
Qualcomm.....	59
Texas Instruments .....	60
Samsung.....	61
STMicroelectronics .....	62
Freescale Semiconductor .....	63
Broadcom.....	64
Renesas Technology .....	65
Infineon Technology.....	66
Intel .....	67
Spansion .....	68

---

---

Methodology.....	69
Databeans Market and Product Segmentation Definitions .....	71
Market Segmentation.....	71
Product Segmentation .....	78

## Table of Figures

Figure 1: 2009 Worldwide Semiconductor Revenue Share by Market Segment .....	2
Figure 2: Worldwide Semiconductor Revenue Forecast by Market Segment.....	2
Figure 3: Worldwide Wireless Semiconductor Market Forecast (Revenue, Units, and ASPs).....	3
Figure 4: 2009 and 2014 Multimarket Semiconductor Revenue Share for Wireless by Product .....	5
Figure 5: Worldwide Multimarket Semiconductor Revenue Forecast for Wireless by Product .....	6
Figure 6: 2009 and 2014 Wireless Specific Semiconductor Revenue Share by Product .....	7
Figure 7: Worldwide Wireless Specific Semiconductor Revenue Forecast by Product.....	8
Figure 8: 2009 and 2014 Worldwide Wireless Semiconductor Revenue Share by Region .....	10
Figure 9: Worldwide Wireless Semiconductor Revenue Forecast by Region .....	11
Figure 10: Americas Wireless Semiconductor Revenue Forecast .....	12
Figure 11: Europe Wireless Semiconductor Revenue Forecast .....	14
Figure 12: Japan Wireless Semiconductor Revenue Forecast.....	16
Figure 13: China Wireless Semiconductor Revenue Forecast .....	18
Figure 14: Other Asia Wireless Semiconductor Revenue Forecast .....	20
Figure 15: 2009 Worldwide Wireless Semiconductor Revenue Forecast by Wireless Market Segment.....	24
Figure 16: Worldwide Wireless Semiconductor Revenue Forecast by Wireless Market Segment.....	24
Figure 17: Worldwide Mobile Phones Wireless Semiconductor Revenue Forecast .....	27
Figure 18: 2009 Worldwide Mobile Phone Semiconductor Revenue Share by Product Type.....	27
Figure 19: Worldwide Infrastructure Wireless Semiconductor Revenue Forecast .....	31
Figure 20: Worldwide BTS Equipment Revenue Forecast .....	31
Figure 21: 2009 Worldwide Wireless Infrastructure Semiconductor Revenue Share by Product .....	32
Figure 22: Worldwide Short Range Wireless Semiconductor Revenue Forecast .....	33
Figure 23: Worldwide Short Range Wireless Semiconductor Revenue Share by Product Type.....	34
Figure 24: Worldwide Wireless Semiconductor Revenue Forecast – Other.....	37
Figure 25: 2009 and 2014 Worldwide Wireless Semiconductor Revenue Share by Product Type.....	40
Figure 26: Worldwide Wireless Optoelectronics Semiconductor Revenue Forecast .....	41
Figure 27: Worldwide Wireless Diodes Semiconductor Revenue Forecast .....	42

---

---

Figure 28: Worldwide Wireless Small Signal Transistors Semiconductor Revenue Forecast.....	43
Figure 29: Worldwide Wireless Power Transistors Semiconductor Revenue Forecast.....	44
Figure 30: Worldwide Wireless Power Amplifiers Semiconductor Revenue Forecast.....	45
Figure 31: Worldwide Wireless Analog Revenue Forecast by Product Type .....	47
Figure 32: Worldwide Wireless Standard Analog Revenue Forecast by Product Type.....	49
Figure 33: Worldwide Wireless DSP Revenue Forecast by Application Market.....	50
Figure 34: Worldwide Wireless Microcontrollers Semiconductor Revenue Forecast .....	51
Figure 35: Worldwide Wireless Application Processors Semiconductor Revenue Forecast .....	52
Figure 36: Worldwide Wireless Logic Semiconductor Revenue Forecast .....	54
Figure 37: Worldwide Wireless Memory Revenue Forecast by Product Type .....	56
Figure 38: 2008 Worldwide Wireless Semiconductor Revenue Share by Supplier.....	57

## Table of Tables

Table 1: Worldwide Semiconductor Revenue Forecast by Market Segment .....	3
Table 2: Worldwide Wireless Semiconductor Market Forecast (Revenue, Units, and ASPs) .....	4
Table 3: Worldwide Multimarket Semiconductor Revenue Forecast for Wireless by Product .....	6
Table 4: Worldwide Wireless Specific Semiconductor Revenue Forecast by Product.....	8
Table 5: Worldwide Wireless Semiconductor Revenue Forecast by Region.....	11
Table 6: Worldwide Wireless Semiconductor Revenue Forecast by Wireless Market Segment .....	23
Table 7: Worldwide Mobile Phone Semiconductor Revenue Forecast by Product Type .....	28
Table 8: Worldwide Mobile Phone Revenue Forecast by Handset Type.....	28
Table 9: Worldwide Mobile Phone Shipment Forecast by Handset Type .....	29
Table 10: Worldwide Wireless Infrastructure Semiconductor Revenue Forecast by Product .....	32
Table 11: Worldwide Short Range Wireless Semiconductor Revenue Forecast by Product Type.....	34
Table 12: Worldwide Short Range Wireless Application Revenue Forecast by Application Type .....	34
Table 13: Worldwide Short Range Wireless Application Shipment Forecast by Application Type.....	35
Table 14: Worldwide Wireless Semiconductor Revenue Forecast by Product Type.....	39
Table 15: Worldwide Wireless Analog Revenue Forecast by Product Type.....	47
Table 16: Worldwide Wireless Standard Analog Revenue Forecast by Product Type .....	49
Table 17: Worldwide Wireless DSP Revenue Forecast by Application Market .....	50
Table 18: Worldwide Wireless Memory Revenue Forecast by Product Type.....	56
Table 19: 2007 and 2008 Worldwide Wireless Semiconductor Revenue Share by Supplier.....	58

---

---

*This report is the property of Databeans Inc., and has been distributed to a select group of clients upon specified terms and conditions. Data presented in this report is an interpretation of the modeled market, and is believed to be reliable, but is not guaranteed for accuracy or completeness. Reproduction of this report, in whole or in parts, is permitted only by express consent of Databeans, Inc.*



© 2009 **databeans** Incorporated

Publication Number: 09SemiApps-Wireless

Research Analyst: Susie Inouye

✉ [sinouye@databeans.net](mailto:sinouye@databeans.net)

Research Analyst: Matt Scherer

✉ [matt@databeans.net](mailto:matt@databeans.net)

Research Analyst: Myson Robles-Bruce

✉ [myson@databeans.net](mailto:myson@databeans.net)

---