

2009 RF Power Amplifiers and Transceivers

Analog Markets – Worldwide



2009 RF Power Amplifiers and Transceivers

Analog Markets – Worldwide

Susie Inouye

Matt Scherer

Myson Robles-Bruce

Publication Number: 09ANALOG-RFPA&Transceivers

April 2009

© 2009 **databeans** Incorporated

Reno, NV 89523

Phone: 775.624.6200

www.databeans.net

Abstract

NOTE: This report replaces Communications Analog ICs.

The analog product market for communications equipment can be sub-divided into several product categories. Wireless and wired special purpose components account for the largest majority of the market for 2009. Other categories include typically general purpose analog products such as: power management, amplifiers, comparators, data converters, and interface. All together these product categories combine into what will be a \$10 billion market for 2009 and will continue to grow by 13 percent annually over the next several years to reach \$18.4 billion by 2014.

It is expected that in 2009 special purpose communications analog products revenue will drop by 14 percent worldwide. The current market conditions for handset chip vendors have been impacted by a disastrous fourth quarter in 2008. However, the forecast calls for a relatively swift recovery with revenue returning to the beyond the 2008 market next year. Revenue will be driven by mobile phone upgrades and infrastructure build-outs in emerging markets as well as infrastructure upgrades in mature regions.

Special purpose wireless products make up the majority of transceiver and power amplifier consumption. These devices are used in a variety of communications devices such as mobile phones, multimedia players, base stations, in short-range wireless applications, and in 2-way radio and cordless phones. This is by far the largest category in terms of special purpose communications analog product revenue, with \$6.6 billion or 92 percent of total sales predicted for 2009.

This study is available through individual report purchase for **\$2,500.00 USD**, or available at a discounted rate through our **Databeans Complete Library**, the **Analog Markets Service**, or the **Analog Applications Service**, which includes this study as well as other in-depth reports on Amplifiers, Comparators, Data Converters, Interface, Analog Power Management, and application specific devices. 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, and customers that have purchased 5 or more reports in a calendar year, 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, and customers that have purchased 5 or more individual reports in a calendar year, 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.

Table of Contents

Significant Findings	1
Communications Analog Overview.....	1
RF Power Amplifiers and All Transceivers.....	3
RF Power Amplifiers and RF Transceivers.....	4
Wired Transceivers.....	5
Regional Forecast.....	7
Americas.....	11
Europe.....	13
Japan.....	14
Asia Pacific.....	16
China.....	17
Taiwan.....	18
Korea.....	19
India.....	19
Regional Revenue and Shipment Forecast by Product Type.....	20
Consumption Forecast.....	25
Automotive.....	27
Computer.....	30
Consumer.....	34
Communications.....	38
Wireless Communications.....	39
Mobile Phones.....	39
Wireless Infrastructure.....	40
Wired Communications.....	42
Industrial.....	46
Production Forecast.....	49
Power Amplifiers.....	51
Low Noise Amplifiers.....	52
RF Transceivers.....	54
Wired Transceivers.....	55
Supplier Market Share.....	57
Infineon.....	58
STMicroelectronics.....	71
RF Micro Devices.....	73
Skyworks Solutions.....	74
CSR.....	75
Texas Instruments.....	76
NXP Semiconductors.....	77
Freescale Semiconductor.....	78
Renesas Technology.....	79
Analogics.....	79
Maxim Integrated Products.....	80

Methodology.....	81
Databeans Market and Product Segmentation Definitions.....	83
Market Segmentation.....	83
Product Segmentation.....	90

Table of Figures

Figure 1: 2009 Worldwide Communications Analog Revenue Share by Product.....	2
Figure 2: Worldwide Communications Analog Revenue Forecast.....	2
Figure 3: Worldwide RF PA and Transceivers Market Forecast (Revenue, Units and ASP).....	4
Figure 4: Worldwide RF PA and RF Transceiver Market Forecast (Revenue, Units, and ASP).....	5
Figure 5: Worldwide Wired Transceiver Market Forecast (Revenue, Units, and ASP).....	6
Figure 6: 2009 Worldwide RF PA and Transceiver Revenue Share by Region.....	7
Figure 7: Worldwide RF PA and Transceiver Revenue Forecast by Region.....	8
Figure 8: Worldwide RF PA and RF Transceiver Revenue Forecast by Region.....	9
Figure 9: Worldwide Wired Transceiver Revenue Forecast by Region.....	10
Figure 10: Americas RF PA and Transceiver Revenue Forecast.....	11
Figure 11: Europe RF PA and Transceiver Revenue Forecast.....	14
Figure 12: Japan RF PA and Transceiver Revenue Forecast.....	15
Figure 13: Asia Pacific RF PA and Transceiver Revenue Forecast.....	16
Figure 14: Worldwide Mobile Phone RF PA and RF Transceiver Revenue Forecast by Region.....	20
Figure 15: Worldwide Infrastructure RF PA and RF Transceiver Revenue Forecast by Region.....	21
Figure 16: Worldwide Short Range RF PA and RF Transceiver Revenue Forecast by Region.....	22
Figure 17: Worldwide Other Wireless RF PA and RF Transceiver Revenue Forecast by Region.....	23
Figure 18: 2009 Worldwide RF PA and Transceiver Revenue Share by Market Segment.....	25
Figure 19: Worldwide Automotive RF PA and Transceiver Revenue Forecast by Product.....	27
Figure 20: Worldwide Computer RF PA and Transceiver Revenue Forecast by Product.....	31
Figure 21: Worldwide Consumer RF PA and Transceiver Revenue Forecast by Product.....	34
Figure 22: Worldwide Communications Transceiver and PA Revenue Forecast by Product.....	38
Figure 23: Worldwide Smartphone Shipment Forecast.....	39
Figure 24: Worldwide Industrial RF PA and Transceiver Revenue Forecast by Product.....	47
Figure 25: 2009 Worldwide RF PA and Transceiver Revenue Share by Product.....	49
Figure 26: Worldwide Transceivers and PA Revenue Forecast by Product.....	50

Figure 27: Worldwide RF PA Market Forecast (Revenue, Units, and ASP)	52
Figure 28: Worldwide LNA Market Forecast (Revenue, Units, and ASP)	53
Figure 29: Worldwide RF Transceivers Market Forecast (Revenue, Units, and ASP)	55
Figure 30: Worldwide Wired Transceivers Market Forecast (Revenue, Units, and ASP)	56
Figure 31: 2008 Worldwide RF PA and Transceiver Revenue Share by Supplier.....	57

Table of Tables

Table 1: Worldwide Communications Analog Revenue Forecast by Product.....	3
Table 2: Worldwide RF PA and Transceivers Market Forecast (Revenue, Units and ASP)	4
Table 3: Worldwide RF PA and RF Transceiver Market Forecast (Revenue, Units, and ASP)	5
Table 4: Worldwide Wired Transceiver Market Forecast (Revenue, Units, and ASP)	6
Table 5: Worldwide RF PA and Transceiver Revenue Forecast by Region.....	8
Table 6: Worldwide RF PA and Transceiver Shipment Forecast by Region	8
Table 7: Worldwide RF PA and RF Transceiver Revenue Forecast by Region	9
Table 8: Worldwide RF PA and RF Transceiver Shipment Forecast by Region	9
Table 9: Worldwide Wired Transceiver Revenue Forecast by Region.....	10
Table 10: Worldwide Wired Transceiver Shipment Forecast by Region	10
Table 11: Worldwide Mobile Phone RF PA and RF Transceiver Revenue Forecast by Region.....	20
Table 12: Worldwide Mobile Phone RF PA and RF Transceiver Shipment Forecast by Region	20
Table 13: Worldwide Infrastructure RF PA and RF Transceiver Revenue Forecast by Region	21
Table 14: Worldwide Infrastructure RF PA and RF Transceiver Shipment Forecast by Region.....	21
Table 15: Worldwide Short Range RF PA and RF Transceiver Revenue Forecast by Region	22
Table 16: Worldwide Short Range RF PA and RF Transceiver Shipment Forecast by Region	22
Table 17: Worldwide Other Wireless RF PA and RF Transceiver Revenue Forecast by Region	23
Table 18: Worldwide Other Wireless RF PA and RF Transceiver Shipment Forecast by Region.....	23
Table 19: Worldwide RF PA and Transceiver Revenue Forecast by Market Segment	26
Table 20: Worldwide RF PA and RF Transceiver Revenue Forecast by Market Segment.....	26
Table 21: Worldwide Wired Transceiver Revenue Forecast by Market Segment	26
Table 22: Worldwide Automotive RF PA and Transceiver Revenue Forecast by Product	28
Table 23: Worldwide Automotive Electronics Revenue Forecast by Application.....	28
Table 24: Worldwide Automotive Electronics Shipment Forecast by Application.....	29
Table 25: Worldwide Computer RF PA and Transceiver Revenue Forecast by Product.....	31

Table 26: Worldwide Computer Electronics Revenue Forecast by Application.....	32
Table 27: Worldwide Computer Electronics Shipment Forecast by Application	33
Table 28: Worldwide Consumer RF PA and Transceiver Revenue Forecast by Product	35
Table 29: Worldwide Consumer Electronics Revenue Forecast by Application.....	36
Table 30: Worldwide Consumer Electronics Shipment Forecast by Application.....	37
Table 31: Worldwide Communications Transceiver and PA Revenue Forecast by Product.....	38
Table 32: Worldwide Mobile Phone RF PA Revenue Forecast by Handset Type	40
Table 33: Worldwide Mobile Phone RF Transceiver Revenue Forecast by Handset Type	40
Table 34: Worldwide Communications RF PA Revenue Forecast by Application	43
Table 35: Worldwide Communications LNA Revenue Forecast by Application	43
Table 36: Worldwide Communications RF Transceiver Revenue Forecast by Application	43
Table 37: Worldwide Communications Equipment Revenue Forecast by Application.....	44
Table 38: Worldwide Communications Equipment Shipment Forecast by Application.....	45
Table 39: Worldwide Industrial RF PA and Transceiver Revenue Forecast by Product.....	46
Table 40: Worldwide Industrial Equipment Revenue Forecast by Application Area.....	47
Table 41: Worldwide Industrial Equipment Shipment Forecast by Application Market.....	47
Table 42: Worldwide Transceivers and PA Revenue Forecast by Product.....	50
Table 43: Worldwide Transceiver and PA Shipment Forecast by Product.....	50
Table 44: Worldwide Power Amplifiers Market Forecast (Revenue, Units, and ASP)	51
Table 45: Worldwide LNA Market Forecast (Revenue, Units, and ASP)	53
Table 46: Worldwide RF Transceivers Market Forecast (Revenue, Units, and ASP).....	55
Table 47: Worldwide Wired Transceivers Market Forecast (Revenue, Units, and ASP)	56
Table 48: 2008 and 2007 Worldwide RF PA and Transceiver Revenue Share by Supplier.....	58
Table 49: 2008 and 2007 Americas RF PA and Transceiver Revenue Share by Supplier.....	59
Table 50: 2008 and 2007 Europe RF PA and Transceiver Revenue Share by Supplier.....	60
Table 51: 2008 and 2007 Japan RF PA and Transceiver Revenue Share by Supplier	61
Table 52: 2008 and 2007 Asia Pacific RF PA and Transceiver Revenue Share by Supplier	62
Table 53: 2008 and 2007 Worldwide RF PA and RF Transceiver Revenue Share by Supplier	63
Table 54: 2008 and 2007 Americas RF PA and RF Transceiver Revenue Share by Supplier	64
Table 55: 2008 and 2007 Europe RF PA and RF Transceiver Revenue Share by Supplier	65
Table 56: 2008 and 2007 Japan RF PA and RF Transceiver Revenue Share by Supplier.....	66
Table 57: 2008 and 2007 Asia Pacific RF PA and RF Transceiver Revenue Share by Supplier	67
Table 58: 2008 and 2007 Worldwide Wired Transceiver Revenue Share by Supplier.....	68

Table 59: 2008 and 2007 Americas Wired Transceiver Revenue Share by Supplier.....	68
Table 60: 2008 and 2007 Europe Wired Transceiver Revenue Share by Supplier.....	69
Table 61: 2008 and 2007 Japan Wired Transceiver Revenue Share by Supplier	69
Table 62: 2008 and 2007 Asia Pacific Wired Transceiver Revenue Share by Supplier.....	70

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: 09ANALOG-RFPA&Transceivers

Research Analyst: Susie Inouye

✉ sinouye@databeans.net

Research Analyst: Matt Scherer

✉ matt@databeans.net

Research Analyst: Myson Robles-Bruce

✉ myson@databeans.net
