

# FUTURE MOBILE HANDSETS

9th Edition

Worldwide Market Analysis, Strategic Outlook & Forecasts to 2012

CONTAINS OVER  
40 KEY DATA SETS

## The most authoritative strategic report for the global mobile handsets market

“*The worldwide handset market has more than doubled in six short years, reaching 975 million unit sales in 2006. Handsets sales are forecast to pass the 1 billion mark for the first time in 2007, to reach an unprecedented 1.1 billion. Over the next two years the handset industry will experience a period of increased competition and lower margins.*” David McQueen, Principal Analyst

Now in its 9th edition, **Future Mobile Handsets** is the definitive guide to the worldwide handsets market now, and over the next five years. The report provides unrivalled coverage and in-depth analysis of mobile handset device trends, highlighting the important role they will play in supporting future generation wireless communications networks.

**NEW IN THIS  
EDITION**

- ✓ **Detailed forecasts** for 2.5G, 3G and now 3.5G handsets by region from 2007 – 2012 including: HSDPA, HSUPA, CDMA 1xEV-DO Rev A and CDMA 1xEV-DO Rev B
- ✓ **Detailed analysis** of market segmentation evolution and the emergence of new market segments including Mobile Converged Devices and FMC handsets
- ✓ **New vendor profiles:** Apple, HTC and Sagem plus updated profiles on the top 5 handset manufacturers: Nokia, Motorola, Samsung, LG Electronics and Sony Ericsson analysing company performance, product portfolio and our expert analysts insight
- ✓ **Handset average selling price (ASP) and bill of material (BOM) detailed analysis** and forecasts to 2012 by technology (2G, 2.5G, 3G, and 3.5G) and feature-set (from basic phones to high-end smartphones)

See inside for more on NEW coverage in this edition





“A key factor of success in today’s mobile handset industry is having a broad, balanced product portfolio. Cost control must also be a theme running throughout the complete lifecycle of a mobile handset, from the product development and design stages, through to discontinuation. Increasing competition, the desire to sell greater volumes at the low end, and the reducing costs of technologies has begun the erosion of vendor average selling prices. In light of this, the leading handset vendors are now looking to revise their business models, seeking to diversify their revenue streams.”

David McQueen, Author,  
Future Mobile Handsets



Future Mobile Handsets provides a detailed evaluation of how players need to tackle key industry challenges across each link in the technology value chain. It provides a comprehensive analysis of markets across the world and technology evolution, with detailed five year forecasts for 2.5G, 3G and now 3.5G handsets from 2007 to 2012.

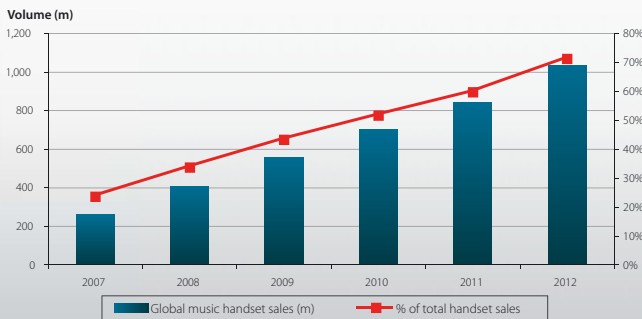
The report contains extensive market segmentation analysis and also provides in-depth discussions of the industry’s key issues, including:

- manufacturing trends
- the importance of brand
- distribution and retail strategies

The report delivers:

- ✓ **In-depth analysis** of advances in hardware technology and software solutions with further granularity, comparing different competing technologies suitable for different market segments
- ✓ **Extensive and detailed forecasts** by region and by technology, along with roadmaps of industry developments throughout the technology value chain. This report provides players with a complete picture, essential for making decisions over the next five years.
- ✓ **Analysis and forecasts** of key feature sets, such as cameras, music, video playback and Web 2.0, is included, while also examining future developments such as digital broadcasting, WLAN and WiMAX
- ✓ **Hardware technology analysis** for both wireless solutions and mobile handset devices along the value chain from component to system level
- ✓ **Detailed assessments** of cost, performance and power consumption for different technologies and devices.

## GLOBAL MUSIC HANDSET PENETRATION



Source: Informa Telecoms & Media

## TABLE OF CONTENTS

### CHAPTER 1 EXECUTIVE SUMMARY

### CHAPTER 2 INTRODUCTION TO THE MOBILE COMMUNICATIONS INDUSTRY

#### Cellular network technologies

- Digital 2G Networks
- Digital 2.5G Networks
- Digital 3G Networks
- Digital 3.5G Networks
- Future network developments

#### Subscriber forecasts

- Regional mobile subscriber analysis
  - North America
  - Latin America
  - Asia Pacific
  - Europe
  - Africa & the Middle East
- Prepaid services

#### Mobile data users

- Mobile data services market

### CHAPTER 3 HANDSET MARKET TRENDS & OUTLOOK

#### Handset market overview

##### Key market drivers

#### Mobile handset market analysis

##### Regional Handset Market Analysis

- North America
- Latin America
- Asia Pacific
- Europe
- Africa & the Middle East

##### Mobile handset market analysis by technology

- GSM family
- CDMA family
- Replacement handset markets
- The second-hand handset market

### CHAPTER 4 HANDSET VALUE CHAIN AND PRODUCTION

#### Evolution of the mobile handset value chain

- Relationships within the value web
- Areas of influence and convergence in the value web

- Vendor differentiation
  - Technology leadership
  - The importance of brand
- Handset manufacturing trends
  - The ODM market
    - Case study: Compal Communications
  - EMS providers
    - Case study: Foxconn International
    - Case study: Flextronics
  - Design houses
- Production
- Quality control processes
  - Qualification
  - Just-in-time supply
  - Mobile device management
  - Interoperability
- Handset distribution & retail
  - Handset distribution
  - Retail subsidies and total cost of ownership

### CHAPTER 5

#### MARKET SEGMENTATION

##### Network operator segmentation

##### Segmenting by technology

- Basic phones
- Low-feature phones
- Feature-rich handsets
  - Smartphones
- Future technology segmentation
- Other connected computing devices

##### Segmentation by price

##### Segmentation by income

##### Lifestyle market segments

- Leisure segment
- Enterprise segment
- Design segment
- Demographic influenced handsets
- Multifunction segment

##### Major vendor segmentation strategies

- Nokia
- Motorola
- Samsung
- Sony Ericsson
- LG

## NEW IN THE 9TH EDITION

### NEW Detailed forecasts

2007 - 2012

- Comprehensive regional and technology analysis and forecasts
- 3.5G subscriber and handset forecasts by region, includes HSDPA, HSUPA, CDMA 1xEV-DO Rev A & CDMA 1xEV-DO Rev B
- Segmentation by disposable income
- TD-SCDMA and TD-CDMA forecast analysis
- Average ASP and BOM by technology (2G, 2.5G, 3G, and 3.5G)
- WiMAX handset forecasts and analysis

### NEW Segmentation by disposable income

The cost of the handset is critical when targeting developing countries, that will be responsible for the next billion mobile subscribers. This edition provides a detailed map of mobile subscribers as a function of their disposable income and the cost of handsets they can afford to buy.

### NEW Convergence analysis

Convergence is changing the way the mobile handset market is segmented. This edition identifies the addressable markets for converged devices and analyses how convergence will change the landscape of the handset market.

### NEW ASP and BOM analysis

This edition provides forecasts and a regional analysis of the BOM and ASP by market segment from basic phones to value smartphones and by wireless technology. The report also provides analysis and forecasts for minimum BOM and minimum selling prices for different categories of devices.

### NEW Single Chip market development

Semiconductor technology and the evolution of single-chip design are enabling device makers to lower the cost of their devices whilst enabling additional features and functionalities. The report assesses

single-chip market development and deployment in different segments of the market from ultra-low-cost handsets through to smartphones.

### NEW Digital radio technology

Digitising radio functions is currently enabling a number of wireless modes and baseband frequencies to be integrated in a single die, which dramatically reduces the cost of the handset, its power consumption and its form factor. This edition provides detailed analysis of the technology in the context of the mobile handset market and discusses strategies of leading solution providers.

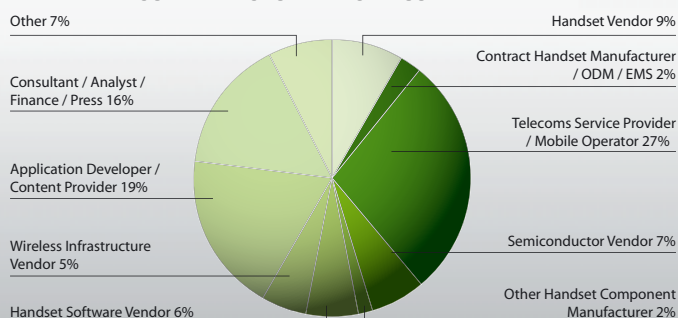
## CASE STUDIES

Access	HTC	Panasonic Mobile Communications
Apple	Huawei	Pantech & Curitel
BenQ	Infineon	Qualcomm
Broadcom	Kyocera	Sagem
Compal Communications	LG Electronics	Samsung
Ericsson Mobile Platform	Linux OS	Sony Ericsson
Flextronics	Microsoft WM	Symbian OS
Foxconn International	Motorola	Texas Instruments
Freescale	NEC	ZTE
	Nokia	
	NXP	

## NEW EXCLUSIVE 2007 INDUSTRY SURVEY

Future Mobile Handsets 9th edition includes the results of a recent extensive survey amongst key global vendors and operators. The results are integrated throughout the report, ensuring that the information you receive is entirely unbiased and based on current industry opinion.

SURVEY RESPONDENTS BY COMPANY TYPE



### CHAPTER 6 HANDSET VENDOR STRATEGIES

- Introduction
- ASP analysis
- Market share & competitive landscape consolidation
- Vendor profiles
  - Nokia
    - Company overview
    - Product portfolio
    - Strategy
  - Motorola
  - Samsung
  - LG Electronics
  - Sony Ericsson
  - Other significant players
    - Apple
    - BenQ
    - HTC
    - Huawei
    - Kyocera

- NEC
- Panasonic Mobile Communications
- Pantech & Curitel
- ZTE

### CHAPTER 7 HANDSET FEATURES

- Overview
- Feature set roadmap
- Handset feature sets
  - Messaging
  - Mobile imaging
    - Camera handsets
    - Mobile video
    - Mobile broadcast television
  - Mobile audio
  - Application platforms
    - Mobile Java
    - Binary Runtime Environment for Wireless (BREW)
    - Adobe Flash Lite handsets
  - External memory

- PANs
- Multi mode handsets
  - WLAN
  - WiMAX
- Positioning and location-based services

### CHAPTER 8 OPERATING SYSTEMS, USER INTERFACES AND BROWSERS

- Mobile OS market and technologies
  - OS market segmentation
  - Symbian OS
  - Microsoft Windows Mobile (WM)
  - Linux OS
- OS opportunities in the mobile handset market
  - Market segmentation of OSs
  - Market forecasts by OS type
  - Open OS forecasts by region
- UI and OTA provisioning
  - Device customisation and the role of UI
  - Dynamic UI and OTA provisioning, upgrade and repair.

- Data input/output methods
- Browser technologies unified messaging

### Chapter 9 HANDSET DEVICES AND HARDWARE TECHNOLOGY

- Introduction
- Processing technology
  - The need to compromise between performance, power consumption and cost
  - Applications processors
  - Multimedia accelerators and co-processors
  - Digital signal processing (DSP)
- Mobile wireless modems, and chipsets
  - RF and related components
  - Digital baseband and multimedia processors, from modular to single chip approach
  - Evolution of the wireless modem in a single-chip
  - Market forecasts for wireless modem processors
  - Case studies: chipset manufacturers

## KEY QUESTIONS ANSWERED IN THIS REPORT

- What are the key network technologies and how are they being implemented globally?
- What size is the addressable market (i.e. subscriber forecasts)?
- How large is the market for handsets?
- What are the major trends in handsets?
- What are the key handset segments and features?
- Who are the major players in the handsets value chain and what are the successful strategies?
- How much of the market will smartphones account for?
- What is the effect of open source on the mobile terminal software industry?
- What key hardware and software trends will shape the industry?
- What are the future trends in handset ASPs and cost?
- How will convergence and disruptive networks affect the handsets industry?

## KEY FORECASTS 2007- 2012

**Mobile subscribers (m)**, by region and network technology

**Mobile data users as percentage of subscribers**, by region

**Mobile handset sales (m)**, by:

- region and network technology
- network technology grouping
- technology segmentation
- chipset embedded and by process speed
- embedded storage memory footprint (m units)
- RAM memory footprint (million units)
- number of display colours
- display resolution
- battery capacity (m units)

**Worldwide handset sales by wireless network technology including:**

- WCDMA
- HSDPA
- CDMA EV-DO
- CDMA EV-DO Rev A
- CDMA EV-DO Rev B

**Worldwide handset sales by feature set including:**

- Cameraphones
- Mobile video
- Mobile music (MP3/AAC)

- Java
- BREW
- Flash Lite
- Bluetooth
- Dual-mode WLAN
- Dual-mode WIMAX

**Replacement handsets sales in year as a percentage of total handset sales**, by region, 2007-2012

**Handset features penetration, 2001-2012**

**Broadcast TV handsets sales**, by technology

**Handset sales featuring external memory slot**, by standard

**Smartphone sales**, by OS and segment by region

**Open OS handset sales (m)**, by OS type

**Average hardware requirements** by mobile market segment

**BOMs and ASPs** by market segment and by wireless network technology

**Minimum selling price (MSP)** by device category from basic phones to smartphones

**ASP forecasts** by region

**Handset sales** by price category

**ASP for 2G, 2.5G, 3G and 3.5G handsets**, average across all ranges vs low-end points

Qualcomm  
Texas Instruments  
Ericsson Mobile Platforms  
Infineon  
Freescale  
Broadcom  
NXP

### Memory technology

Embedded storage  
RAM memory

### Screen technology

Market forecasts by colour depth and by market segment  
Market forecasts by resolution and market segment

### Battery technologies and power management

Introduction  
Smart battery designs  
Market forecasts by battery capacity  
Power management systems

## CHAPTER 10

### STRATEGIC OUTLOOK & CHALLENGES

#### Market Outlook

#### Future mobile handsets

Design, form factors & features  
Concept designs

#### Bill of materials (BOM) and average selling prices (ASP)

Informa terminology and methodology  
Factors influencing handsets manufacturing  
Trends in controlling the device cost  
Average hardware & software requirements by market segment

#### The bill of materials and manufacturing costs

Main factors influencing BOM  
Trends in BOM by market segment  
Forecasts for average BOM for basic phones, feature phones and smartphones  
Trends in BOM by access technology  
Forecasts for average BOM for 2G, 2.5G, 3G, and 3.5G handsets

#### ASP analysis by feature set, wireless technology and region

Competition and its effect on mobile handset ASP  
Trends and forecasts of ASP by market segment and wireless technology  
Handset sales distribution as a function of handset prices  
Mobile handset ASP by market segment from basic phones to smartphones  
Mobile handset ASP by wireless access network from 2G to 3.5G  
ASP regional forecasts and analysis

#### Low-cost handsets from ULC to value feature-phones and smartphones

Market overview  
The rationale behind the low-cost rush  
Forecasts for minimum BOM and ASP by feature sets

#### Mobile Cellular Network Evolution

3.9G or Long Term Evolution

#### HSPA evolution

UMB

4G

#### Disruptive network technologies

WiMAX  
WiBRO  
FLASH-OFDM  
Mobile broadcast systems  
DVB-H  
MediaFLO

#### Convergence

Contents correct at time of print

# FUTURE MOBILE HANDSETS

9th Edition

Worldwide Market Analysis, Strategic Outlook & Forecasts to 2012

## WHO SHOULD READ THIS REPORT?

### HANDSET VENDORS

- Benefit from complete analysis of the global mobile handset market
- Investigate new technologies and revenue streams
- Track the current position and performance of your competitors

### OPERATORS

- Understand how the mobile handset market is developing
- Discover where your company can profit from new opportunities, current successes and potential partnerships

### COMPONENT MANUFACTURERS

- Use detailed forecasts for handset components to drive your business forward
- Base future decisions on accurate data and independent analysis from leading industry experts

### APPLICATION AND CONTENT PROVIDERS

- Gain an unparalleled understanding of how mobile technologies and handsets will develop
- Assess the impact that this will have on the services you currently provide, and those you may offer in the future

### CONSULTANTS, ANALYSTS AND FINANCIAL ORGANISATIONS

- Develop a thorough understanding of the workings of the global mobile handset industry
- Base future investments and recommendations on unbiased, unique analysis and primary data

## ABOUT THE AUTHORS

### DAVID MCQUEEN



David focuses on mobile handset developments and vendor strategies worldwide. Over the past 5 years he has built up an in-depth knowledge of the market developing in-house original online research amongst Informa Telecoms & Media's extensive team of telecoms professionals.

David has 12 years experience in the telecoms research and consulting sector and has gained first hand experience in the handset markets' needs and requirements. At Informa Telecoms & Media, David is the lead author on a range

of strategic reports including: Future Mobile Handsets, Mobile Application Platforms and Operating Systems, and Mobile TV. David is a frequent speaker and chair at international conferences and has given many presentations on current trends and future development of mobile handsets and devices.

### GAVIN BYRNE



Gavin works at Informa Telecoms & Media as a Research Analyst, looking at mobile handsets and devices. With over six years' experience in research, competitive intelligence and benchmarking within the telecoms and IT sectors, he has provided comment to industry leading publications, contributed to a number of analytical newsletters and authored or co-authored several strategic reports. Gavin holds an honours degree in European Business Administration.

### MALIK KAMAL-SAADI



Dr Malik Kamal-Saadi is a Principal Analyst at Informa Telecoms & Media. He has planned, authored and co-authored many Informa Telecoms & Media reports, including Mobile Applications Platforms & Operating Systems, Open Source in the mobile market, Future Mobile Broadband, Mobile VoIP, IP Multimedia Systems (IMS), Mobile Converged Devices, Future Mobile Computing, and Metropolitan Area Networks and Switching Technologies. Malik has

considerable experience in the telecommunications industry, focusing on the development of related technologies and markets. He has also played a key role in a number of European and Government projects. Malik has a PhD degree from Groupe d'Etude des Semiconducteurs (GES, France), specialising in Semiconductor Devices and Materials, Design and Engineering.

# Order Form

Future Mobile Handsets – 9th Edition  
Worldwide Market Analysis, Strategic Outlook & Forecasts to 2012  
Published: October 2007

be better  
informed

## YOUR DETAILS

[Mr/Mrs/Ms/Miss]	Family/Surname	Forename
Business Email	Telephone	Fax
Position	Company	
Address		
Postcode		
		Country

## I WOULD LIKE TO ORDER

Future Mobile Handsets – 9th Edition	PRICE	QUANTITY	TOTAL
Paper Copy	£2995 / US\$5990 / € 4420		
Single User PDF	£4490 / US\$8980 / €6625		
Single User PDF + Paper Copy	£5990 / US\$ 11,980 / € 8835		
<input type="checkbox"/> I am interested in a multi-user licence. Please contact our customer services team on +44 (0)20 7017 5537			Sub Total
			VAT
			<b>Total</b>

## PAYMENT OPTIONS

Please debit my credit card (credit card payments are charged in £ sterling) £/US\$/€  
 Amex  Diners  Mastercard  Visa

Card no:

Expiry date:  /  Security code (last 3 digits on signature strip):

I enclose a cheque payable to Informa UK Ltd for the sum of: £/US\$/€

UK VAT at 17.5% is chargeable on orders for the PDF report from all UK customers and from non VAT registered customers in other EU Member States. Please supply your EU VAT registration number or add 17.5% UK VAT to your remittance.

Signature:  Date:

## 5 EASY WAYS TO ORDER

- **fax:** +44 (0)20 7017 4783
- **tel:** +44 (0)20 7017 5537
- **email:** [telecoms.enquiries@informa.com](mailto:telecoms.enquiries@informa.com)
- **web:** [www.informatm.com/fmh](http://www.informatm.com/fmh)
- **post:** Customer Services, Informa Telecoms & Media, Sheepen Place, Colchester CO3 3LP, UK

Your unique promotional code:

- Please tick this box if you do not wish to receive further information on Informa UK Ltd products.
- Please tick this box if you do not wish to receive further information from selected external companies.

The personal details shown on this brochure or provided by you will be held on a database and shared with companies in the Informa Group. They may be used to keep you up to date with developments in your industry. Sometimes your details may be obtained from, or made available to external companies for marketing purposes. We believe that you are the correct person to receive details of publications connected with this subject. If this is not the case, or if you do not wish to receive further correspondence from us, please write to Informa UK, Cyan House, 1 Canada Road, Byfleet, Surrey, KT14 7BF. Telephone +44(0)1932 893600, fax: +44 (0)1932 893601, email: [database@informa.com](mailto:database@informa.com) Informa UK Limited – Registered Office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH. Registered No.: 1072954 (England and Wales). VAT Reference No.: GB365462636

Document Number: P3764



## Handsets & Devices Intelligence Centre

New for 2007, Informa Telecoms & Media's Intelligence Centres are powerful online information services delivering up-to-the-minute market comment and data via a single, customised homepage.

Handsets & Devices Intelligence Centre is designed to deliver a complete handset intelligence solution. From ultra low-cost handsets, vendor strategy and consolidation coverage to mobile operating systems and the outcome of device convergence, Handsets & Devices Intelligence Centre will drive your handset strategy.

### Core coverage includes:

- » Operating systems, UIs and browsers
- » Handset vendor strategy
- » Handset components and semiconductors
- » Handset distribution, marketing, retail
- » Handset trends



For more information or a free demonstration, contact us on +44 (0)20 7017 5326 or email [ic@informa.com](mailto:ic@informa.com)