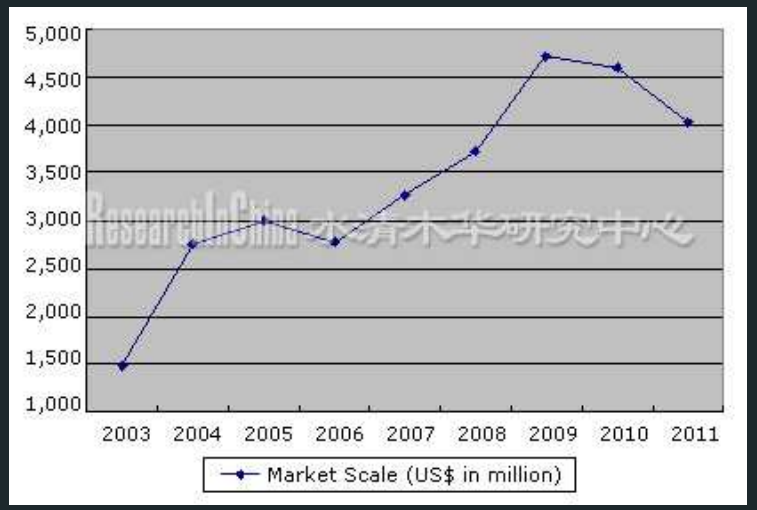
Mobile Phone Application Processor IC (Multimedia IC) Industry Report, 2007-2008

Application processor of a handset is developed for certain specific type of applications of a handset, which can be classified into three types, including an all-round type, a multimedia type and a single-media type. The all-round type has not only the function of a multimedia application processor, but also the ability to run complicated operating system similar to Linux. Vendors of this type include Samsung, ST, TI, Renesas and Marvell. The multimedia type refers to the processors that are capable of processing over two media as usual like image, audio, video and 3D graphics, and most of application processors belong to this type. The single-media type only handles static image or audio, which is not studied in this report.

Emergence of application processor is the outcome of ceaseless innovation and development of mobile phone applications. For the majority of handset manufacturers, they all have rich experience in the design of mobile phone platforms and own intellectual property rights. In early years, those platforms merely served for communication but could do nothing beyond communication. Therefore, application processor came into being. The biggest advantage of application processor lies in its independence from mobile phone communication platform, thus making it flexible and convenient. Also, the design flow is shortened and the existing experiences and IP are brought into full play. Emergence of camera handset has created a great number of application processor producers, specialized in the processing of camera back-end. Baseband vendors as SoC specialists integrated JPEG decoding function of camera back-end into baseband in 1-2 years, resulting in a market downturn for numerous vendors of application processor with JPEG decoding function. However, new application of mobile phone has conduced to another round of usage peak of application processor, and those applications comprise complex operating system, mobile TV, high-quality 3D graphic, 3-megapixel-and-above camera, intelligentization, GPS, high-definition photographing of video flow, etc.

Yet, application processor vendors should attend to it that some baseband vendors have integrated the functions supporting 5-mega pixels, 30fps, H.264, MPEG4, H.263 and WMV9 video playing, VGA resolution output and 16-bit color depth into baseband. Those high-performance basebands are expected to be massively applied in mobile phone in 2011, when application processor vendors will face another market downturn.

Statistics & Forecast of Global Handset Application Processor Market Size, 2003-2011



Source: ResearchInChina

Table of Contents

- **1. Brief Introduction of Handset Application Processor**
  1.1 Brief Introduction of Handset Industry
  1.2 Background of Application Processor

- **2. Driving Force of Application Processor Market**
  2.1 Smart Phone
  2.2 Mobile TV
  2.2.1 Brief Introduction of Handset TV
  2.2.2 Handset TV Market
  2.2.3 Hardware Analysis of DVB-H Handset Sample
  2.3 3D Handset
  2.4 H.264 Hardware Decoding Handset

- **3. Application Processor Industry and Market**

- **4. Application Processor Vendors**
  4.1 TI
  4.2 Renesas
  4.3 Toshiba
  4.4 AMD/ATI
  4.5 NVIDIA
  4.6 MTEKVISION
  4.7 CORELOGIC
  4.8 STMicroelectronics
  4.9 FREESCALE
  4.10 AIT
  4.11 MARVELL
  4.12 BROADCOM
  4.13 Winbond
  4.14 Anyka
  4.15 Vimicro
  4.16 Jade Tech
  4.17 Chipnuts
  4.18 Samsung

Selected Charts

Statistics and Forecast of Global Handset Shipment, 2005-2011
Global Market Share of Main Handset Brands, 2007
Forecasted Proportion of Smart Phone Shipment, 2008-2012
Forecasted Proportion of Smart Phone Operating System, 2008-2012
Frequency Spectrum Distribution of Various Mobile TVs
Global Distribution of Mobile TVs by Network
Comparison of Various Mobile TVs
Forecast of TV Handset Shipment by Region, 2006-2012
Forecast of TV Handset Shipment by Technology, 2006-2012
Moving Graphics Engine Roadmap of Epson
Inner Control Flow of S1D13743
H.264 Coder Framework Containing Data Flow and Function Module
Comparison of MPEG-2 and H.264 Decoding Module
Block Diagram of H.264 Decoder
Operation Mode of H.264
Market Share of Global Main Handset Application Processor Vendors, 2007 (by Shipment)
Market Share of Global Main Handset Application Processor Vendors, 2007 (by Sale)
Forecast of Market Share of Global Main Handset Application Processor Vendors, 2008 (by Sale)
Statistics and Forecast of Global Handset Application Processor Market Scale, 2003-2011
Global Handset Application Processor and Average Price Statistics, 2003-2011
Revenue of TI by Product, 2007
Revenue of TI from Handset Products, 2003-2007
Revenue of TI from 3G Handset-based Products, 2003-2007
Block Diagram of OMAP1710

Block Diagram of OMAP2420
Die Microscopic Analysis of TI's Latest Application Processor
Block Diagram of OMAP3420
Block Diagram of OMAP-DM510
Statistics and Forecast of Revenue and Operating Profit of Renesas, FY2004-FT2008
Revenue of Renesas by Product, FY2007
Shipment Statistics and Forecast of SH-Mobile, 2002-2009
Roadmap of SH-Mobile
Roadmap of SH-Mobile G Series
Microscopic Die Chart of SH-Mobile G2 and G3
Structure of SH-Mobile Platform
Hardware Structure of SH-Mobile Platform
Middleware Roadmap of SH-Mobile Platform
Video Middleware Roadmap of SH-Mobile Platform
Audio Middleware Roadmap of SH-Mobile Platform
Application Middleware Cases of WMA
Middleware Structure Cases of Digital TV
Block Diagram of SH-Mobile L3V2
Block Diagram of SH-Mobile UL
Block Diagram of SH-Mobile 3 (SH73180)
Block Diagram of SH-Mobile 3A (SH73380)
Block Diagram of SH7722 (SH-MobileR)
Revenue and Profit of Toshiba Semiconductor, FY2001-FY2010
Revenue of Toshiba by Product, FY2005-FY2009
Investments of Toshiba Semiconductor by Field, FY2003-FY2009
Application Processor Roadmap of Toshiba
Core Structure of Toshiba's Handset Application Processor
Block Diagram of Toshiba's Handset Application Processor
Video Flow Chart of Toshiba's Handset Application Processor

Block Diagram of Nvidia Handset GPU
Organization Chart of Mtekvision
Staff Structure of Mtekvision
Opeation Flow of Mtekvision
Global Distribution of Mtekvision
Statistics and Forecast of Sales Revenue of Mtekvision by Product,1999-2008
Accumulated Shipment of Mtekvision's Product Models as of 2007Q2
Block Diagram of MV8720
Overview of Handsets Adopting Mtekvision
Revenue and Gross Profit Margin of CoreLogic, 2003-2007
Revenue of CoreLogic by Product, 2003-2008
Product Roadmap of CoreLogic
Product Technological Roadmap of CoreLogic
SWOT Analysis of CoreLogic
Block Diagram of CL6100
Revenue of ST by Dept., 2005Q1-2007Q4
Revenue of ST by Dept., 2007
Typical Application of STN8815
Revenue of Freescale by Product, 2007
Statistics of Revenue and Operating Profit Margin of Marvell, FY2001-FY2008
Typical Application of Marvell PXA3XX-series Platform
Revenue and Gross Profit Margin of Winbond, 2006Q2-2008Q1
Revenue and Gross Profit Margin of Winbond by Product, 2006Q2-2008Q1
Revenue of Winbond by Application, 2007Q4 & 2008Q1
Shipments of Global Top 14 Handset Vendors, 2007
Output of Global Top 15 Handset Manufacturers, 2007
Output, Sales Revenue and Baseband Supplier of 40 Handset Manufacturers in China, 2007-1Q2008
More…

How to Buy

Product details			How to Order
	USD	File	By email: report@researchinchina.com
Single user	2,200	PDF	By fax: 86-10-82600829
Enterprisewide	3,300	PDF	By online: www.researchinchina.com
Publication date: June 2008			

For more information, call our office in Beijing, China:

Tel: 86-10-82600828

Website: www.researchinchina.com