Consumer & Mobile MEMS Market Tracker

Consumer MEMS Markets Hold Promise Despite Global Downturn

By Jérémie Bouchaud, Director & Principal Analyst and Richard Dixon, Senior Analyst

Forecast

Frequency, Time Period

- 5-year annual
- 2-year rolling half-year

Measures

- Revenue for 1st level packaged components
- ASP
- Units
- Market Shares by MEMS product
  - Revenue 2006, 2007 and 2008 for each MEMS device: accelerometers, gyroscopes, Optical MEMS for displays, microphones
  - Detail by device/application for key areas (e.g. market shares for accelerometers in cell phones, gyroscopes in DSCs, Microphones in laptops)
- Overall top 15 mobile and consumer MEMS suppliers
  - Revenue 2006, 2007 and 2008

Regions, Markets

- Worldwide

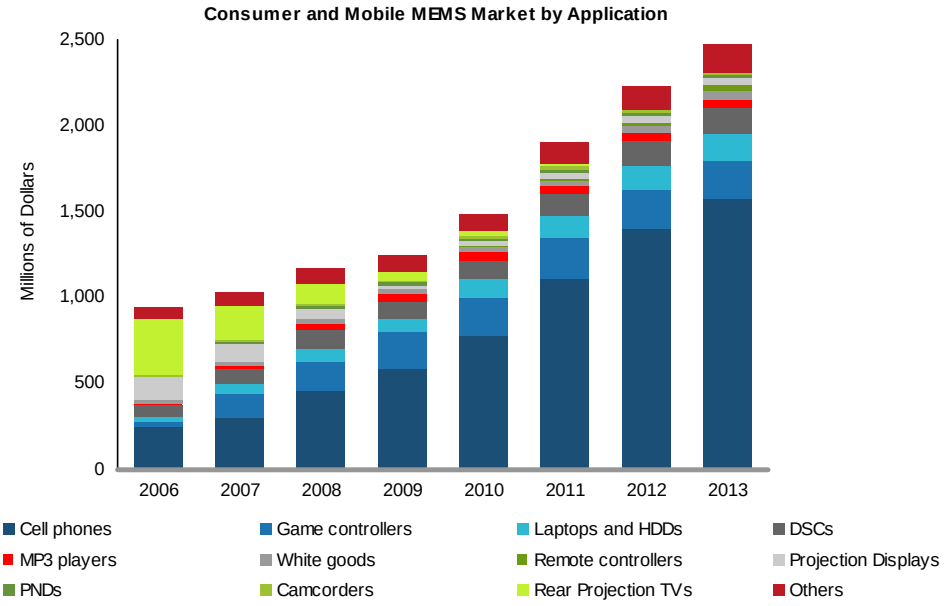
Technologies Covered

- MEMS sensors such as accelerometers, gyroscopes, RF MEMS switches
- Silicon, quartz (e.g. QMEMS gyroscopes and oscillators) and piezo-ceramic (e.g. gyroscopes from Murata)

Database of consumer products that use MEMS

- Over 550 consumer end products classified by:
  - End application (e.g. cell phones, DSCs, PNDs, MP3 players)
  - MEMS product inside: accelerometer, gyroscope, MEMS microphone with link to datasheet
  - MEMS suppliers: ADI, ST, Knowles, …
  - Date of introduction on the market
  - Street price

Despite the deep cuts in consumer spending on major electronics and mobile products, the MEMS industry continues to thrive in mobile handsets and consumer devices. And while MEMS products like DLP chips that were already identified as losing ground continue in this fashion, the MEMS domain has been more than compensated by the ascendancy of accelerometers, microphones, and even gyroscopes—a product that will penetrate the large mobile phone market earlier than anticipated. A number of factors drive the success of MEMS sensors—not least of which is the desire for intuitive motion-based interfaces in mobile devices. In addition, MEMS sensors earn plaudits for enabling the practical requirement of taking blur-free pictures in cameras and camera phones that—through no fault of their own—suffer from the pixel "one-upmanship" of the manufacturers; and finally, for providing rich and realistic gaming experiences.



Critical Questions Answered

- What kind of sensors will be successful in cell phones in the upcoming years? In addition to accelerometers, have gyroscopes and pressure sensors a chance?
- What are trends with regards to multi-sensors integration? Will Inertial Measurement Units enter consumer products?
- What's the real opportunity for RF MEMS? Will FBAR continue to grow? Will MEMS switches finally enter phones? Have MEMS oscillators a chance against quartz?
- What are the market shares by MEMS sensor products and by applications?

Who Should Read This?

- MEMS Component Manufacturers
  - Marketing
  - Executive
- ODM: Manufacturers of cell phones, game controllers, PNDs, DSCs
  - Procurement
  - R&D and sensor integration
- MEMS Foundries
  - Marketing
- Equipment for MEMS, ASIC and Semiconductor Manufacturers, Packaging and Testing
  - Sales
  - Marketing

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Applications/Products Covered

- Cell Phones, Smart Phones and Mobile Internet Devices
  - BAW filters
  - Accelerometers
  - Microphones
  - Gyroscopes
  - RF MEMS switches
  - Micro-fuel cells
  - MEMS based displays
  - MEMS actuator for Autofocus and zoom
  - MEMS oscillators
- Game Controllers
  - Accelerometers
  - Gyroscopes
- Laptops
  - Accelerometers
  - Microphones
  - Pressure sensors
- Digital Still Cameras & Camcorders
  - Gyroscopes
  - Accelerometers
  - Microphones
- TVs and home theaters
  - Digital Micro Devices (DLP)
  - Scanner for projection displays
  - Accelerometers
- Personal Navigation Devices
  - Accelerometers
  - Gyroscopes
  - Pressure sensors
- Remote controllers
  - Accelerometers
  - Gyroscopes
- White goods (washing machines, microwaves…)
  - Pressure sensors
  - Thermopiles
  - Accelerometers
- Others: Toys, Sports Equipment (watches, shoes)
  - Pressure sensors
  - Gyroscopes
  - Accelerometers

Sample Table of Contents

Figures

Lead Analyst

Dr Richard Dixon, Senior Analyst

Richard Dixon is senior analyst for MEMS and the author of over 50 MEMS related consulting and market research studies.

Richard graduated from North Kent University with a degree in Materials Science and earned a doctorate from Surrey University on semiconductor characterization.

He served as a technology transfer engineer for RTI International for 5 years before serving as an analyst for WTC for consumer and automotive MEMS for clients as varied as Qualcomm, EPCOS, University of Munich and Robert Bosch.

Richard speaks English and German.

Jérémie Bouchaud, Director

Mr. Bouchaud is head of market research for MEMS and is responsible for over 100 MEMS related studies on the field of consulting and market research. His breadth of knowledge of MEMS applications and individual markets, such as MEMS sensors for automotive, consumer markets and RF MEMS, is unique to the industry.

Jérémie is a graduate of the Munich University of Applied Sciences and of Ecole Supérieur de Commerce of Grenoble. He was in charge of technology transfer for sensors and MEMS at the German office of CEA-LETI (leading French R&D center in semiconductor and MEMS) between 1998 and 2000 when he joined WTC as co-founder. He has authored over 40 publications on market and applications of MEMS and sensors.

Jérémie speaks French, English and German.

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