Emerging MEMS 2010

March 2010

Sample

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Objectives of the report (1/2)

- MEMS technologies have and will always be driven by innovation. It means that, every year, new MEMS developments are coming out. These developments will not necessarily turn into commercial success. But it shows there will always be applications where MEMS devices could be used.

- For a long time, the MEMS market has mostly been composed of “mature” MEMS devices: IJ heads, pressure sensors, accelerometers and DMD. Then came microfluidics, gyroscopes, micro phones, RF MEMS (the later still struggling to shift to large volume, despite what has been said a few years ago).

- Besides these devices, there are a lot of new MEMS that have cross the gap between R&D and commercialization and/or are close doing so. This report presents these new “Emerging” MEMS devices that could be the next killer application of tomorrow.

- This report presents new MEMS devices:
  - Auto Focus
  - Electronic Compass
  - Energy Harvesting
  - Micro-bolometers
  - Micro displays
  - Micro fuel cells
  - Micro speakers
  - Micro structures
  - Microtips
  - Oscillators
  - RFID

- For every device, the report shows:
  - Description of the application/Overview
  - Players & technologies
  - Market dynamics
  - Technical trends / roadmap
  - Market forecasts 2009-2015 in units & value (M$)

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Objectives of the report (2/2)

The objectives of this report are the following:

1. To provide understanding of new MEMS devices under developments and players. For each Emerging MEMS, overview, market dynamics, technologies, players, technical trends and market shares are described.

2. To provide market data on new MEMS developments. Each Emerging MEMS has been quantified in market value and units for 2009 and 2015.

3. To provide an identification of new MEMS companies that could contribute to the MEMS market growth in the future.
Emerging MEMS

NEW APPLICATIONS

Digital compass
Microbolometers
Energy harvesting
Microdisplays

SUBSTITUTION FOR OTHER TECHNOLOGIES

µFuel cells
µSpeakers
Auto-focus
Oscillators
Microstructures
Microtips
MEMS RFID

CAGR > 50%

Where Emerging MEMS are.
MEMS products are in the development phase having successfully crossed the “Chasm”

Content of the report

- Microphones
- Gyroscopes
- Accelerometers
- Pressure sensors
- Filters
- Inkjet Head
- Microbolometers
- Microdisplay
- Microtips
- Autofocus/µZoom
- MEMS Oscillators
- MEMS Speakers
- Energy harvesting
- µFuel cells
- MEMS ID
- µstructures
New MEMS devices

A few examples …

MEMS-based speakers

MEMS-based autofocus

MEMS-based ID trackers

MEMS-based oscillators

Digital compass
Emerging MEMS Forecast (in US$ value)
2015 Emerging MEMS maturity vs. CAGR

- µbolometers
- Digital Compass
- µtips
- Auto-focus
- µstructures
- MEMS Oscillators
- µdisplays
- µfuel cells
- µspeakers

2009-2015 CAGR