

MEMS Consumer World: Products and Applications

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ABSTRACT

Silicon MEMS sensors and actuators made their first appearance in the semiconductor fabs in the 1960s. Their use has been mainly limited to automotive, medical and industrial markets, being automotive market regulations the main driving forces for their development and commercialization. In the consumer market thermal ink-jets and electrostatic micromirrors for videoprojectors represent the onset of "The MEMS Consumerization Wave". Nowadays we are all actors of the widespread usage of physical sensors in different consumer market segments, from mobile phones to digital still camera, from portable multimedia players to game controllers, from 3-dimensional pointers to personal computers. MEMS consumer market adoption is proceeding at faster pace than automotive market and volumes are at least ten times bigger. The big pressure of consumer market on the development of low power consumption, ultra compact size and extremely inexpensive sensors will drive the adoption of these technologies in new markets, from entertainment to domestic robots, from ambient assisted living to smart homes, from factory automation to ... applications we all will discover together in the next years.