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Micro-Electro-Mechanical Systems (MEMs) Sensors: Market Shares, Strategies, and Forecasts, Worldwide, 2018 to 2024

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Abstracts

The leading vendors in the MEMs sensor have invested in high-quality technology and processes to develop leading edge monitoring and digital triggering activation capability.

Figure 1. MEMs Sensors Market Driving Forces

MEMS market is ripe for consolidation
25 participants with measurable market share
Huge growth coming from the digital economy
Digital ecosystem depends on sensors
Driven by IoT
Driven by self-driving cars
Driven by artificial intelligence
Driven by robots
Driven by augmented reality
Driven by drones
Driven by interoperability
Freedom to move workloads anywhere in the cloud ecosystem
Source: WinterGreen Research, Inc.

Micro-electro-mechanical systems (MEMS) technology is used in the fabrication of inertial sensors, and particularly accelerometers. MEMS accelerometers are used in diverse markets that implement the digital economy. The reason for their success is low price, small size, high reliability, and low power consumption.

MEMS accelerometers are replacing traditional electro-mechanical accelerometers

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because they offer tactical grade performance. They povide the functionality required to measure motion in three-dimensional space. Digital signal processors calibrates the sensors during runtime. They intelligently convert raw sensor data from multiple sensors. The output from MEMs sensors creates application-specific data.

The total value of the MEMs sensor market is $12.5 billion in 2017, up from $10.35 billion in 2016. Markets grow to $58.7 billion in 2024. Growth is a result of the implementation of the digital economy, IoT, robots, drones, self-driving cars, and artificial intelligence. The digital economy rides on the back of MEMs sensors. This is the new world aspect, everything is monitored and activated digitally.

MEMs organic volume growth has been relatively slow as existing motion sensor and traditional end-product markets achieve market saturation. There are new and growing opportunities, including the newer IoT applications that are in the early adopter phase. IoT sensors have yet to gain significant market traction but they will, once units are proven in real life situations of the digital economy, self-driving cars, drones, traffic lights, and smart things.

According to Susan Eustis, leader of the team that prepared the research, “MEMS suppliers have a focus on sensor improvement. Power and performance are being improved.” “Everything Will Be Connected,” said SoftBank Chief Executive Masayoshi Son, “Everything will be connected,” said SoftBank Chief Executive Masayoshi Son, announcing a ARM processor deal in London. “Cows will be connected, chickens will be connected, the sheep will be connected.”

As a significant market does take root, MEMs sensors face the challenge of generating profit above costs. The companies keep prices low to buy customers and spur demand. MEMs vendors seek to be in businesses where there are millions and billions of units.

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