

2019 Semiconductor Manufacturing Research Review

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Abstracts

REPORT SCOPE

In the global technological developments semiconductor manufacturing industry has been considered as one of the largest contributors since long time. It is expected to grow steadily, owing to the contribution from emerging semiconductor industry segments like 5G communication, flexible displays, artificial intelligence (AI), connected cars, driverless cars, data centers and storages, Internet of Things (IoT), among others.

Technically advanced gadgets and devices has become an integral part of people's lifestyle, owing to integration of various semiconductor devices such as sensors, chips, micro-controllers, circuits, displays, cells, among others. It can be observed that semiconductors have influenced every bit and piece of all the computer systems, consumer electronic products and has become core parts of their functionality. With increase in applications of artificial intelligence (AI), IoT, driverless cars, smart homes, computer systems are dependent on efficient sensors and semiconductors chips to carry out their advanced functionalities for better system output.

Semiconductors sales have grown in various industries, especially consumer electronics, automotive, industrial automation, healthcare diagnostics, aerospace and defence. Artificial Intelligence (AI) is one of the fastest growing segments for semiconductor industry, as the global spending for AI was over \$35 billion by the end of 2018 and is expected to grow at ~24% over the next five years. For instance, tech giant Google, Inc. has invested around \$4 billion acquiring AI startups in 2018. With the continuous technology advancement in new technologies, global semiconductor manufacturing industry is expected to witness significant growth in next few years.

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