

China Spintronics Market, By Device Type
(Semiconductor Based Spintronics, Metallic Based
Spintronics, Alloy Based Spintronics), By Application
(Magnetic Sensors, Hard Disks and Magnetic Random
Access Memory, Electric Vehicles, Quantum
Computing, RF and Microwave Devices, Others), By
End User (Automotive, Industrial, Consumer
Electronics, Healthcare, IT and Telecom), By Region,
Competition Forecast & Opportunities, 2027

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# **Abstracts**

The China spintronics market is anticipated to grow at a steady CAGR in the forecast period, 2023-2027. Advancements in spintronics technology and high demand for electronic devices are primarily driving the demand for China's spintronics market. Moreover, the use of spintronics technology in quantum computing and high demand from the automotive industry is expected to play a major role in boosting the growth of China's spintronics market over the forecast period.

High Demand for Spintronics in Electronic Devices Drives the Market Growth

China has one of the largest electronics industries worldwide and is famous for producing inexpensive consumer goods in large quantities. In the previous years, spintronics technology has been increasingly used in data storage devices and the microelectronics industry. Spintronics technology is preferred to store data due to its active data transmission capabilities and higher data storage capacity in comparison to traditional devices. Spintronics-based devices are expected to replace electronic devices and offer greater performance at lower power consumption rates. The



advantages of using spintronics technology are zero standby leakage, high endurance, nonvolatile nature, easy 3D integration capability, and support for present-day electronic circuits based on CMOS technology. The growing popularity of smart devices and internet of things technology is increasing the demand for higher memory capable of handling several functions at lower power which is expected to boost the China spintronics market growth over the forecast period.

## Advancements in Technology Supports the Market Growth

High-end investments by the market players to upgrade the existing infrastructure and find novel solutions to improve performance and reduce power consumption are expected to create lucrative growth opportunities for the market players over the next five years. Recent advances in spintronics technology are generally based on nanometric thin film-like structures, which comprise perpendicular magnetic anisotropy, and the spin currents are utilized to produce changes in the magnetization of the magnetic layer. Engineers are working on increasing the multilayer stacks composed of alternated magnetic or non-magnetic metals. They can be utilized in the next generation of magnetoresistive random-access memory (MRAM) devices. The high demand from various end-user industries such as automotive, industrial, consumer electronics, healthcare, IT, and telecom and ongoing technological advancements are expected to propel the China spintronics market growth over the forecast period.

#### Market Segmentation

The China spintronics market is segmented into device type, application, end user, regional distribution, and competitive landscape. Based on device type, the market is divided into semiconductor based spintronics, metallic based spintronics, alloy based spintronics. Based on application, the market is divided into magnetic sensors, hard disks and magnetic random access memory, electric vehicles, quantum computing, rf and microwave devices, and others. Based on end user, the market is divided into automotive, industrial, consumer electronics, healthcare, and IT and telecom. To analyze the market based on the region, the China spintronics market is studied in major regions namely East China, North China, North East China, South Central China, North West China, and South West China.

## Market Players

NVE Corporation, Everspin Technologies Inc., Spin Memory Inc., Crocus Technology, Synopsys (QuantumWise), Avalanche Technology, Intel Corporation, Atomistix A/S,



Rhomap Ltd., Plures Technologies, are the major market players operating in the China spintronics market.

Report Scope:

In this report, China spintronics market has been segmented into following categories, in addition to the industry trends which have also been detailed below:

China Spintronics Market, By Device Type:

Semiconductor Based Spintronics

Metallic Based Spintronics

Alloy Based Spintronics

China Spintronics Market, By Application:

Magnetic Sensors

Hard Disks and Magnetic Random Access Memory

**Electric Vehicles** 

**Quantum Computing** 

RF and Microwave Devices

Others

China Spintronics Market, By End User:

Automotive

Industrial

Consumer Electronics

Healthcare



IT and Telecom

China Spintronics Market, By Region:

East China

North China

North East China

South Central China

North West China

South West China

## Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in China spintronics market.

Available Customizations:

With the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).



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