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Press Release

## **Insight 2026: electronica China Spotlights 10 Major Industry Buzzwords!**

Over the past three years, the global electronics industry has reshaped the resilience of its supply chains amid turbulence. From the emergence of generative AI to the comprehensive upgrade of new energy architectures, the industry has demonstrated remarkable adaptability under pressure. The focus of technological innovation has shifted from breakthroughs in individual performance indicators to deep empowerment of application scenarios. Stepping into 2026, the electronic information industry enters the deep waters of transformation, shifting from technological breakthroughs to commercial closed loops. Confronted with increasingly complex market demands and diversified technological roadmaps, how should hardware terminals harness the boundless possibilities of intelligence? At this crucial juncture, electronica China has identified and unveiled the 10 major industry buzzwords for 2026, drawing on the latest industry trends. This forward-looking technical guide aims to support every link in the industry chain, helping industry professionals anchor their direction amid sweeping changes and jointly explore new avenues for future growth.

### **Intelligent New Energy Vehicles**

With the advancement of large model technology, a major trend in the automotive industry in 2026 is the emergence of the AIEV (artificial intelligence electric vehicle) concept. The industry focus is gradually shifting from basic electrification architecture to intelligent experiences powered by AI. Unlike previous autonomous driving systems that relied on rule-based codes, end-to-end large model solutions—with their superior generalization capabilities—are becoming a key focus for leading automakers in research and development.

In the field of intelligent connectivity, the application scenarios for C-V2X technology are expanding. According to the 2025 Research Report on Urban NOA Vehicle Assisted Driving released by the China Association of Automobile Manufacturers, in the first three quarters of 2025, new passenger vehicle sales equipped with combined driving assistance functions (L2) in China increased by 21.2 percent year-on-year, with a penetration rate of 64 percent. The penetration rate is expected to rise further in 2026. This signifies that vehicles' perception of their surroundings will no longer be confined to a single-vehicle perspective, but will evolve toward integrated perception across vehicle, road, and cloud. At the same time, as autonomous driving advances to higher levels, it is posing new challenges for hardware. To support inference of large models at the edge, the demand for computing power in automotive-grade SoC chips continues to grow. Meanwhile, to tackle the massive amounts of data transmission, in-vehicle Ethernet and high-speed SerDes connectivity solutions are rapidly replacing traditional bus architectures.

### **AI+**

The integration of artificial intelligence (AI) is becoming a key consideration in the design of electronic products. According to current market trends, AI is shifting from the cloud to the edge,

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which may lead to a notable increase in shipments of edge AI devices. In the coming years, the proportion of end devices equipped with AI acceleration engines is expected to continue expanding. Amid this trend, hardware architectures—whether in PCs, mobile phones, or embedded devices—are undergoing transformation: heterogeneous computing has become mainstream, and NPUs are playing an increasingly vital role within SoCs.

The widespread adoption of AI computing power at the edge is also raising the bar for storage performance. To address data transmission bottlenecks, AI high-speed storage technologies, such as LPDDR6, which represents a new-generation standard, are expected to gradually become commercially available in high-end devices. For the upstream supply chain, this will require the provision of higher-frequency, lower-loss PCB materials and more advanced clock components to ensure the integrity of high-speed signals.

### **Embodied Intelligence**

From laboratory demonstration stands to the assembly lines of factories, the physical interaction capabilities represented by embodied intelligence are ushering in a new chapter for the robotics industry. As the culmination of this trend, humanoid robots are beginning small-scale pilot applications in specific structured scenarios such as industrial handling and precision assembly. According to the report *Humanoid Robots III: The Supply Chain Dynamism* released by Goldman Sachs, the global market for humanoid robots is expected to reach USD 38 billion by 2035 under a baseline scenario, and could soar to USD 205 billion in the most optimistic outlook.

At the hardware level, robots demand a high degree of precision in motion control. High-power-density servo motors, precision reducers, and high-precision encoders form the foundation for achieving flexible motion. Meanwhile, to enable safer human-computer interaction, the integration of multi-dimensional torque sensors and tactile sensing technology is continually advancing. This presents not only a challenge to mechanical structures, but also to electronic systems. Maintaining stable signal transmission in highly dynamic environments places stringent demands on connectors, cables, and anti-interference components.

### **AI Data Center**

The race to build trillion-parameter large models has spurred a surge in the expansion of supporting infrastructure behind the scenes. AI data centers are undergoing a profound transformation from general-purpose computing to intelligent computing architectures. According to Synergy Research Group, by the end of 2025, there will be 1,297 hyperscale data centers in operation worldwide, with computing power increasingly shifting toward AI, creating a demand to overhaul underlying hardware architecture. To address the training and inference requirements of trillion-parameter models, the scale of AI computing clusters is steadily increasing, driving a marked rise in the power density of individual cabinets. Heat dissipation has emerged as a major bottleneck limiting the full potential of computing power, and liquid

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cooling technology is expected to see broader adoption in newly built high-performance computing centers.

Moreover, the speed at which data is exchanged between AI high-speed storage and computing units is of critical importance. The continual evolution of HBM technology, along with advances in CPO technology, aims to address the challenge of the interconnection wall. This has directly fueled demand for high-speed backplane connectors, optical modules, and high-efficiency power management chips.

### **Energy Storage and Green Energy**

Every bit of computing power entails the consumption of one joule of energy. With the dual drivers of digitalization and low-carbon development, energy storage and green energy have become the unsung pillars underpinning the sustainable growth of the digital economy. The continued expansion of installed photovoltaic and wind power capacity is shifting the industry's focus from simple power generation to more efficient power grid regulation and energy conversion.

At the core of power electronics, wide-bandgap semiconductors are making significant strides. The penetration rate of silicon carbide and gallium nitride in photovoltaic inverters and energy storage converters is expected to rise further. According to forecasts by Yole Intelligence, the SiC device market is expected to continue expanding as demand for high-voltage and high-frequency applications grows. In addition, to facilitate grid interaction for virtual power plants, BMS is evolving towards greater measurement precision and intelligence, ensuring that every kilowatt-hour is dispatched safely and efficiently.

### **Industrial Intelligence**

The boundaries between IT and OT are increasingly blurred, and factories are no longer isolated production units, but are evolving into intelligent entities with autonomous decision-making capabilities. In 2026, the core narrative of industrial intelligence has shifted from simply replacing human labor with machines to achieving a digital closed-loop process. The Industrial Internet of Things (IIOT) technology weaves controllers, sensors, and actuators at production sites into a dense perception network. To address the challenges of real-time and deterministic communication on the industrial front line, TSN technology has progressed from standard formulation to large-scale deployment in 2026, breaking down the barriers of incompatible traditional industrial Ethernet protocols and enabling seamless data transmission across devices with millisecond latency. During quality inspection, machine vision-based detection systems integrated with edge AI inference chips are boosting defect identification accuracy to the micron level.

Moreover, predictive maintenance has become a standard feature in high-end manufacturing. By deploying MEMS vibration sensors and acoustic sensors, factories can capture subtle anomalies in equipment operation in real time and leverage digital twin technology to simulate

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and analyze these issues in a virtual environment. This relentless pursuit of optimal production efficiency and flexibility is set to further propel the growth of the market for edge controllers, industrial-grade sensors, and highly reliable interconnection components. For electronic component manufacturers, this means their products must be not only intelligent, but also able to withstand harsh conditions, including high temperatures and electromagnetic interference.

## **6G**

Although 5G-A (5.5G) is at a pivotal stage of commercial rollout, the communications industry already has its sights set on the coming decade. 6G is currently in the window phase for standards definition, and the industry continues to actively explore terahertz communications, integrated sensing and communications, as well as integrated space-air-ground networks. With the emergence of non-terrestrial networks (NTN), the convergence of low Earth orbit satellites and ground communications has become a focal point of research, signaling that future communications networks will be three-dimensional and provide comprehensive coverage. This trend is likely to spur demand for the research and development of radiation-hardened chips, phased array antenna modules, and high-frequency RF components. For the electronics industry, focusing on the early technical verification of 6G is, in fact, a forward-looking move to secure entry into future high-frequency communications and new materials sectors.

## **Low-altitude Economy**

As a national strategic emerging industry, the low-altitude economy is poised to enter a key stage of commercialization in 2026. Pilot projects for the routine operation of eVTOL (electric vertical take-off and landing aircraft) and logistics drones in designated airspace signal that the aviation sector is undergoing its own electrification transformation. The rise of this sector is compelling avionics systems to evolve towards greater lightweight design, miniaturization, and cost efficiency. Unlike traditional large aircraft, low-altitude vehicles are acutely sensitive to weight, making highly integrated flight control systems an essential requirement. The high-precision MEMS inertial navigation unit, anti-jamming GNSS positioning module, and the LiDAR/millimeter-wave radar fusion sensing system form the security foundation for low-altitude flight.

Meanwhile, the electrification transformation of power systems is equally profound. To address range anxiety and meet the demands for high-rate discharge, high-energy-density solid-state and semi-solid battery technologies are rapidly undergoing onboard validation, while supporting BMS must be equipped with aviation-grade safety redundancy. Furthermore, ensuring communications coverage in low-altitude airspace is a major challenge, with surging demand for dedicated 5G-A low-altitude base stations and lightweight airborne communications terminals. At this juncture, the convergence between the automotive electronics supply chain and traditional aviation technology has become inevitable, enabling a new wave of performance upgrades for high-reliability connectors, power devices, and sensor chips.

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## **IoT**

The value of connectivity now lies not only in quantity, but increasingly in quality and efficiency. The Internet of Things (IoT) industry is moving beyond extensive growth and entering a phase of intensive development. According to forecasts by the GSMA, the number of global IoT connections is set to continue its upward trajectory, while the underlying structure of connection technologies is undergoing profound transformation. Currently, the integration of IIoT with RedCap technology has become a focal point in the market. By streamlining unnecessary frequency bands and antennas, RedCap significantly lowers module costs and power consumption, all while preserving the low latency and high reliability characteristic of 5G—making it the ideal communications solution for video surveillance, industrial sensing, and wearable devices.

Meanwhile, passive IoT technology is reshaping the logistics and asset management sectors. By harvesting energy from environmental light, temperature differences, or radio frequency sources, passive tags enable zero-power operation, effectively addressing the longstanding maintenance issue of battery replacement across vast networks of nodes. Moreover, as connection density surges, IoT security has risen to unprecedented prominence. Chips equipped with built-in hardware security modules or physical unclonable functions now serve as digital IDs for connected devices, ensuring every link in the Internet of Everything is secure and trustworthy.

## **Smart Wearables**

After years of technological accumulation and market reshuffling, smart wearable devices are set to embrace their second growth curve in 2026, fueled by the rise of generative AI. AI glasses are gradually shedding their image as gadgets for tech enthusiasts, transforming into personal intelligent assistants equipped with visual recognition and auditory interaction capabilities. They are no longer merely auxiliary screens for mobile phones, but have become the primary gateway to the integration of the physical world and digital information. Breakthroughs in hardware technology underpin this new wave of innovation: the maturation of MicroLED and optical waveguide display technologies enables glasses to project information with high brightness and low power consumption, while still retaining the slim and lightweight profile of traditional frames; meanwhile, advancements in bone conduction and directional audio technologies have resolved the conflict between open-ear listening and privacy protection.

To support 24/7 AI-driven online services, ultra-low-power edge AI computing chips have become indispensable, capable of performing real-time speech recognition and image processing with just milliwatts of power consumption. Meanwhile, advances in battery technology are underway, with the adoption of silicon-carbon anode materials significantly boosting the energy density of micro batteries. Additionally, devices such as smartwatches are becoming more sophisticated in health monitoring. Enhanced sensor accuracy for non-invasive blood glucose measurement, continuous blood pressure tracking, and other functions is bringing wearables ever closer to medical-grade health terminals.

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### **Conclusion**

electronica China 2026 will take place from July 1–3, 2026, in Halls W1–W5 and N1–N5 at the Shanghai New International Expo Centre (SNIEC). The exhibition will expand to nearly 120,000 square meters, with plans to welcome over 1,800 high-quality domestic and international exhibitors, and an expected attendance of more than 70,000 professional visitors. Looking ahead to 2026, the electronics industry is striving to turn more technological concepts into real-world applications. Identifying these buzzwords aims to investigate the industry's potential development pathways and actual market demands. Behind every technological breakthrough lies the ongoing synergy of electronic components and supply chains. The electronica China aims to further show its value as a platform, providing industry professionals with a broader array of cutting-edge solutions and jointly exploring new possibilities in technological advancement.

### **Visitor Registration:**

<https://ezt3.eastfair.com/pc/#/registration?registerLinkId=2018194208412725249&sourceCode=gmedm1>

### **About electronica, productronica, and the global electronic exhibition network**

electronica is a world-renowned global exhibition for electronic components and assemblies, while the world-famous productronica focuses on electronic production equipment. The two exhibitions alternate annually in Munich, Germany. The Messe München global network of electronic exhibitions encompasses electronica, productronica, electronica India, electronicAsia, electronica China, and productronica China. Drawing on the expertise gained from the Munich exhibitions, these events showcase content tailored to meet local market demands.

### **Messe München**

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