

Motherboard Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The motherboard market is expected to register a CAGR of 18.3% over the forecast period. Adopting printed circuit boards (PCBs) in connected vehicles has also accelerated the demand for motherboards in the automotive industry. Connected vehicles are fully equipped with wired and wireless technologies, making it easy to connect to computing devices like smartphones. With such technology, drivers can unlock their vehicles, start climate control systems remotely, check their electric cars' battery status, and track their cars using smartphones.

Key Highlights

Due to population growth, increased disposable income, and growing digitization, the increase in smartphones and computers are significant drivers for the market studied. For instance, according to the Office of National Statistics (UK), the UK manufacturer sales of PCs with a CPU and an input and output device in the same housing accounted for GBP 174.75 million (USD 235.73 million) last year. Such considerable sales of PCs in the United Kingdom would create lucrative opportunities for local and international motherboard manufacturers to develop products according to the customers' requirements.

For instance, in October 2021, ASRock launched a new range of motherboards featuring the Intel Z690 chipset, a brand new LGA1700 socket platform to pair with the latest 12th generation Intel Core Processors, opening endless possibilities with PCI Express 5.0 and DDR5 high-speed memory.

Motherboards intended for gaming are also gaining traction due to re-advanced BIOS configurations. This allows overclocking of the CPU and various other gaming features, enhanced compatibility with higher-end and faster components like DDR4 and DDR5 RAM, PCIe 4 GPUs, etc.

The digital entertainment sector is constantly growing, with video games generating significant revenue. For instance, according to Entertainment Retailers Association, digital video game sales in the United Kingdom reached over GBP 3.77 billion (USD 5.08 billion) last year. Furthermore, according to GfK Entertainment, in 2021, consumers in the United Kingdom spent over GBP 1.13 billion (USD 1.52 billion) on gaming console hardware, a 32.9% growth compared to 2020. This increase is due to advanced gaming uptake among the population as COVID-19 forced people to stay at home and the next-generation console releases of the Sony PlayStation 5 and Microsoft's Xbox Series X/S.

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Several companies are launching advanced products to cater to consumers' complex demands. For instance, in May 2022, MSI introduced its latest powerful motherboard, the MAG B660M MORTAR MAX WIFI DDR4, the latest member of the MAG 600 Series. It features OC Engine and 12 + 2 Duet Rail VRM Power System to enhance and release the actual performance of 12th Gen Core processors. It also features robust cooling designs, like extended heatsinks, 2oz thickened copper PCB and M.2 Shield Frozr, and high-speed connection, like 2.5 G LAN, Wi-Fi 6E, and USB 3.2 Gen 2x2 Type-C.

The COVID-19 pandemic enormously impacted the global and national economies. Many end-user industries have been affected, including those in electronics manufacturing. A combination of multiple resilience efforts such as supplier diversification, a global distributor network, more dedicated sourcing management, and more will provide opportunities for the motherboard market.

Motherboard Market Trends

Industrial Segment to Hold Significant Market Share

According to IBEF, Indian domestic electronics production increased from USD 29 billion in 2014-15 to USD 67 billion in 2020-21. India is recognized as a significant manufacturing powerhouse. About 3.4% of India's GDP is derived from the country's electronics industry. The government has allocated nearly USD 17 billion to four PLI Schemes: IT hardware and components, smartphones, semiconductors, and design. Such massive investments will create opportunities for local motherboard players to develop new products and serve different consumer electronic products.

According to the Directorate General of Commercial Intelligence and Statistics, the export value of computer hardware from India is approximately USD 415 million at the end of the current fiscal year. This was a significant increase from the previous year, thus driving the demand for the motherboard.

Germany is focused on the 2030 vision for Industry 4.0 in three strategic action fields: autonomy, interoperability, and sustainability. In this 2030 vision, the stakeholders of the platform Industry 4.0 presents a holistic approach to shaping the digital ecosystem in the region. Working on the specific situation and established strengths of the German industry base, they aim to create a framework for a future data economy in line with the requirements of a social market economy, emphasizing open ecosystems, diversity, and plurality and supporting competition between all the stakeholders of the market.

Furthermore, the market for industrial motherboards is growing due to vendors rolling out highly integrated motherboard units in various form factors. For instance, in October 2021, ASUS IoT announced N51051I-IM-A, a Mini-ITX industrial motherboard designed for the Intel Celeron N5105 quad-core processor offering numerous I/O ports, advanced connectivity, and flexible customization in a compact board, N51051I-IM-A is ideal for space-restricted installations.

In April 2022, the Taiwanese company ASRock released the latest Intel 12th Gen Core Processors (Alder-Lake-S) with 16 cores and 24 threads. ASRock anticipates that various applications, such as smart cities, healthcare, edge artificial IoT, factory automation, kiosks, etc., may embrace their high-performance motherboards.

North America to Witness Significant Growth

According to GSMA Mobile Economy North America 2021, 327 million North Americans, or 83% of the country's population, would have mobile service subscriptions by the end of 2020. As a result, North America has one of the most developed mobile marketplaces globally. By the next few years, 5G will account for almost two-thirds of total mobile connections, equivalent to nearly 270 million connections. Such massive adoption of smartphones in the region and an increase in the adoption of 5g will significantly drive the motherboard market.

The increased adoption of video streaming apps on mobile devices and televisions to watch movies, TV shows, and live events on demand, has driven the demand for the gaming industry in the country. Moreover, many consumers want to play the latest games

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without requiring a new PC or a console. This has aided the development of more unique formats as well. Such developments in the gaming industry will significantly create an opportunity for the market studied to grow.

As per a study by the ESA, more than 227 million players across the United States region played video games last year. In total, 80% of the players were over 18 years old. Furthermore, 76% of American kids under 18 years are players. In addition, 74% of American households have at least one video game player in their household. Additionally, 71% of parents agreed that video games had been a much-needed break for their children during the pandemic. Additionally, 66% of parents agree that video games made the transition to distance learning more accessible.

In August 2022, a new Center for Organizational Readiness for Enterprise 4.0 (CORE4.0) was established at the University of Louisville to assist businesses in being ready for connected and smart technologies, including automation, AI, and the Internet of Things. The center is expected to offer research, evaluation, recommendations, and workforce development to industries looking to adopt the disruptive technology at the heart of the fourth industrial revolution. The center is supported by a new roughly USD 500,000 grant from the US Economic Development Administration. Developments toward industry 4.0 in the region will drive the demand for the market studied.

Motherboard Market Competitor Analysis

The motherboard market is very competitive in nature. The market is highly fragmented in nature. Some of the significant players in the market are GIGA-BYTE Technology Co. Ltd, ASRock Inc., MiTAC Computing Technology Corporation (MiTAC Group), ASUSTeK Computer Inc., Super Micro Computer Inc., Advantech Co. Ltd, and many more.

May 2022 - The ASUS Republic of Gamers (ROG) announced new PC hardware offerings with the popular anime series Evangelion. The duo's first collaboration is expected to include a special-edition ROG MAXIMUS Z690 HERO motherboard and a ROG STRIX RTX 3090 graphics card. Details include bolted and grooved horizontal lines across the graphics card with NERV, EVA-01, and ROG emblems printed on the fans, while the motherboard appears to display a dynamic glowing image of the Unit-01 mecha.

January 2022 - ASRock Inc. collaborated with Razer and announced the ASRock Z690 Taichi Razer Edition motherboard designed to complement the Razer Chroma RGB ecosystem on the latest 12th gen Intel Core processors. The ASRock Z690 Taichi Razer Edition protects users' valuable data from hackers with the independent ports feature, which can be cut off via BIOS to prevent malware and ransomware access. The ASRock Z690 Taichi Razer Edition motherboard also features lightning gaming ports for gamers which uses two controllers for connecting the mice and keyboard on separate controllers to eliminate jitter and latency as much as possible.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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