

Passive Electronic Components - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

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Report description:

The Passive Electronic Components Market size is estimated at USD 45.53 billion in 2024, and is expected to reach USD 62.12 billion by 2029, growing at a CAGR of 6.41% during the forecast period (2024-2029).

Passive electronic components are the cornerstone of all electronics, in physical design and circuit models' language, representing electrical behavior in complicated systems. Integrated circuits include these components, and circuit boards contain discrete passive components. The increasing demand for electronic devices is anticipated to boost the passive electronic components market's growth.

Key Highlights

- The growth of inductors is presently steady, owing to the increasing number of product launches, the developments in the consumer electronics sector, the rising use of inductors in automotive electronics, and the adoption of smart grids. Globally, the rising demand for consumer electronics, such as tablets, smartphones, laptops, set-top boxes, and portable gaming consoles, is the major factor boosting the need for inductors.
- With the advent of technological advancements, electronics, and electronic devices are getting more complex, primarily due to the increasing consumer demand for small or slim devices. Customers have a specific standard for these devices nowadays, such as a sleek, thin design, with the screen going from edge to edge. Moreover, smartphones have witnessed the great success of MEMS gyroscopes owing to their low cost, miniature size, and lightweight nature. Features like voice-enabled smart devices have also been witnessing increased adoption over the past few years. The adoption of smart devices, such as the Amazon Echo, Google Home, and Sonos, was estimated to be aggressive by the end of 2023. The younger generation views these devices as the smarter, faster, and easier way to perform everyday activities.
- The adoption of wearables in the healthcare sector has been gaining traction in recent times, which, in turn, has been one of the

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significant factors influencing the market studied. The major trends in wearable connected devices include the increasing demand for pain management wearable devices and the increasing use of wearables for cardiovascular disease management.

-As nickel is an essential element for steel industries and, therefore, crucial to industrial countries, in recent times, the price of the element has been most affected by continuing lockdowns in some parts of the world, coupled with supply-side restraints.

Indonesia, the largest miner and nickel exporter, banned metal exports in the hopes of a price rise in the wake of limited supplies to China.

-The COVID-19 pandemic led to immense disruptions in supply chains across industries globally. Many businesses globally halted or reduced operations to help combat the spread of the virus. The pandemic impacted the passive electronic components market, leading to decreased operation levels across the supply chain on the raw material and component production levels. This denoted a fall in sales in a range of regions and countries.

-The demand from consumer electronics industries has increased post-pandemic and is anticipated to boost the demand in the passive electronic components market. For instance, according to the industry body India Cellular and Electronics Association (ICEA), smartphone exports in the April 2022-February 2023 years doubled from a year ago when exports hovered around USD 4.5 billion. In addition, India's mobile phone exports crossed USD 2 billion in the first two months of 2023, driven mainly by Apple and Samsung, taking the entire export value to over USD 9 billion since April 2022, as manufacturers stepped up production and external shipments.

Passive Electronic Components Market Trends

The Consumer Electronics and Computing Industry in the Inductors Segment is Expected to Hold a Significant Market Share

- Inductors have a significant function in the regulation of voltage, noise filtration, and current control within electrical circuits. Their usage is widespread in consumer electronics due to their strong reliance on DC power. In switched-mode power devices in various consumer products, inductors serve as energy storage components to generate DC current. The market is anticipated to experience increased demand due to the expanding consumer electronics sector and growing investments in the industry.

- Inductors are of utmost importance in the consumer electronics sector as they serve multiple purposes. They are utilized for power management, signal filtering, and suppressing electromagnetic interference. In consumer electronic devices like televisions, digital set-top boxes, smartwatches, printers, and audio equipment, inductors act as crucial components. Their primary function is to ensure a steady power supply and eliminate noise, thereby ensuring reliable signal transmission. By carefully selecting and designing inductors, the performance of consumer electronics is optimized, ultimately enhancing the overall user experience. The incorporation of inductors in these devices leads to improved efficiency, stability, and reliability.

- Due to numerous technological advancements, there has been a significant surge in the utilization of consumer electronic devices in recent years. The incorporation of various technological enhancements has captivated customers, leading to a higher demand for inductors. The introduction of touch screens and other advanced functionalities in consumer electronics has further fueled the need for inductors within the industry. With the increasing number of product launches in the consumer electronics sector, there is a growing demand for inductors in the industry.

- Smartphones have become integral components for the utilization of inductors. Typically, high-frequency inductors find their application in mobile phones, which have now become indispensable in day-to-day lives. The incorporation of high-frequency inductors enables faster and more stable internet browsing, facilitates staying updated with the latest social events at any time and place, enhances call quality, and elevates the overall mobile phone user experience.

- Smartphone technology is experiencing rapid growth in comparison to other technologies due to its strong reliance on consumer demand. The quantity of inductors in mobile phones experiences a substantial rise with every successive generation of the mobile communication network. As smartphones continue to evolve and their adoption rate expands, particularly in developing nations, additional avenues for expansion arise. The surge in 5G smartphones and the escalating investments in the manufacturing of 5G mobile phones are projected to amplify the need for inductors.

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- Ericsson's most recent report disclosed that the global count of smartphone mobile network subscriptions nearly reached 6.4 billion in 2022, and it is projected to surpass 7.7 billion by 2028. It is noteworthy that China, India, and the United States are at the forefront, boasting the highest number of smartphone mobile network subscriptions. Although sales plateaued in 2022, the rising average selling price of smartphones is anticipated to propel the market in the forthcoming years.

Asia-Pacific is Expected to Witness Significant Growth in the Inductors Segment

- The demand for inductors is primarily felt in Asia-Pacific, with many countries, like Japan, China, South Korea, and Taiwan, hosting massive companies and foundries for several major passive electronic powerhouses. The consumer electronics market in Asia-Pacific is expected to witness consistent growth, driven by the popularity of smart appliances, innovative high-end products, and new smartphones. As a result, the demand for inductors is also expected to increase, fueled by the expanding sales in the region.

- China, in particular, has excelled in innovation and brand building, securing its position as the global leader in the production and sales of consumer electronics, as stated by the Ministry of Industry and Information Technology. With increasing investments in the region to enhance production capabilities, the consumer electronics market is poised for growth. The China Academy of Information and Communications (CAICT) reported a significant increase in the number of smartphones supporting 5G networks in China. In 2021, the number reached 266 million, marking a 63.5% growth. Furthermore, CAICT revealed that 5G mobile phone shipments reached 214 million in 2022, accounting for 78.8% of the total shipments in the country. This surge in demand for 5G smartphones reflects the rising market demand for consumer electronics in the region.

- The Ministry of Electronics and Information Technology (MeitY) in India has forecasted that the electronics manufacturing sector in the country will achieve a worth of USD 300 billion by 2026, with mobile phone sales taking the lead in the market. As per ICEA, mobile phone sales were estimated at USD 40 billion in 2022 and are anticipated to rise to USD 80 billion by 2026. These governmental efforts to enhance the mobile phone production capabilities in the region are expected to consequently generate demand for inductors.

- As per the GSMA report, India is anticipated to emerge as the leading country in Asia-Pacific by 2030, with 1.3 billion smartphone connections. The region boasts some of the most rapidly expanding 5G markets, and by 2028, Ericsson predicts that 5G will constitute 57% of mobile subscriptions in India, totaling 699.8 million subscriptions. Consequently, the market is anticipated to be propelled by the demand for mobile phones, facilitated by extensive internet penetration and innovative imaging technology.

- Ericsson predicts that by the end of 2028, the number of 5G subscriptions in Southeast Asia and Oceania will reach approximately 620 million. This indicates that 5G will surpass other technologies and become the dominant choice for subscribers, with a penetration rate of 48%. Furthermore, it is projected that the region will have nearly 30 million 5G subscriptions by 2022. Such increasing 5G deployment initiatives are expected to enhance the market opportunities.

Passive Electronic Components Industry Overview

The passive electronic components market is fragmented with the presence of major players like Delta Electronics Inc., Panasonic Corporation, TDK Corporation, Vishay Intertechnology Inc., and Murata Manufacturing Co. Ltd. Players in the market are adopting strategies such as partnerships and acquisitions to enhance their product offerings and gain sustainable competitive advantage.

- In October 2023, TDK Corporation announced the launch of its new PLEA85 series of high-efficiency power inductors developed for battery-powered wearables and other devices, improving operating times. The new series has the lowest profile in the industry, owing to the use of TDK's newly developed low-loss magnetic material and its thin-film processing techniques.

- In October 2023, Vishay Intertechnology Inc. launched a new series of wet tantalum capacitors with hermetic glass-to-metal

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seals. For avionics and aerospace applications, the STH electrolytic capacitors provide all the advantages of Vishay's SuperTan extended series devices while offering a higher reliability design for improved military H-level shock and vibration capabilities and increased thermal shock up to 300 cycles.

Additional Benefits:

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

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