

8-Bit Microcontroller Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

Market Overview:

The global 8-bit microcontroller market size reached US\$ 7.7 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 11.4 Billion by 2028, exhibiting a growth rate (CAGR) of 6.4% during 2023-2028.

An 8-bit microcontroller contains an 8-bit central processing unit (CPU) and a set of high-performance state-of-the-art peripherals, such as memory, controllers, interfaces and external hardware, to assist with computation. It is widely utilized in word processing, gaming software, music development, spreadsheets, and task management as it consumes low power and improves computer performance. Nowadays, manufacturers around the world are introducing modern 8-bit microcontrollers in various shapes and sizes integrated with complex features, including multiple cores, advanced hardware security and internet capabilities.

8-Bit Microcontroller Market Trends:

8-bit microcontrollers are incorporated in the electronics of vehicles to withstand extreme environmental conditions and stress. This, in confluence with the boosting sales of passenger vehicles on account of rapid urbanization, inflating income levels, and improving road infrastructure, represents one of the key factors contributing to the market growth. Apart from this, the escalating use of smart medical device technology in telehealth and remote patient monitoring is catalyzing the demand for 8-bit microcontrollers in nebulizers and syringe pumps to facilitate continuous drug delivery or real-time dosing control. This can also be attributed to the emerging trend of the



Internet of Medical Things (IoMT), which gathers and implements medical tools connected to public healthcare technology infrastructure via internet-based communications systems. Moreover, the home automation trend, coupled with the growing demand for miniature devices, are driving the usage of 8-bit microcontrollers in consumer electronics and home appliances like washing machines and microwave ovens. Besides this, the rising application of heating, ventilation, and air conditioning (HVAC) systems in schools, airports, hospitals and residential, and commercial buildings is anticipated to create a positive outlook for the market across the globe.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global 8-bit microcontroller market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on product type and end use industry.

Breakup by Product Type:

Less Than 80 Pins 80-120 Pins More Than 120 Pins

Breakup by End Use Industry:

Automotive
Aerospace and Defense
Consumer Electronics and Home Appliances
Healthcare
Data Processing and Communication
Others

Breakup by Region:

North America
United States
Canada
Asia-Pacific
China
Japan

India



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Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Analog Devices Inc., Holtek Semiconductor Inc., Infineon Technologies AG, Microchip Technology Inc., NXP Semiconductors N.V., Renesas Electronics Corporation, Seiko Epson Corporation, Silicon Laboratories Inc., Sony Group Corporation, STMicroelectronics N.V., Texas Instruments Incorporated and Zilog Inc. (Littelfuse Inc.).

Key Questions Answered in This Report:

How has the global 8-bit microcontroller market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global 8-bit microcontroller market? What are the key regional markets?

What is the breakup of the market based on the product type?

What is the breakup of the market based on the end use industry?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global 8-bit microcontroller market and who are the key players?

What is the degree of competition in the industry?



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