

# Thick Film Devices Market Report by Type (Capacitors, Resistors, Photovoltaic cells, Heaters, and Others), End-user (Automotive, Healthcare, Consumer Electronics, Infrastructure, and Others), and Region 2023-2028

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## Abstracts

The global thick film devices market size reached US\$ 119.61 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 249.52 Billion by 2028, exhibiting a growth rate (CAGR) of 13.0% during 2022-2028. The augmenting need for film devices facilitating high compatibility with multiple substrates, the accelerating demand for consumer electronics, and the shifting trend towards miniaturization of electronic components represent some of the key factors driving the market.

Thick film devices refer to electronic components that are fabricated through a deposition of a thick layer of resistive, conductive, or dielectric material onto a ceramic or glass substrate. The thick film deposition technique assists in the creation of complex electronic circuits and components. Thick film devices have a relatively thick layer of material with high reliability, with materials that exhibit good adhesion and resistance to environmental factors. They are characterized by good electrical conductivity, dielectric constant, thermal conductivity, TCR (Temperature Coefficient of Resistance) and stability over a wide temperature range. These properties enable the integration of multiple circuit elements and higher power handling capabilities. Additionally, they are highly customizable to meet specific electrical and mechanical requirements and are compatible with a wide range of substrate materials. As a result, they are extensively used in electronic circuits, hybrid microelectronics, and integrated circuit manufacturing applications.

Thick Film Devices Market Trends:

The global market is primarily driven by the augmenting need for film devices facilitating high compatibility with multiple substrates in the electrical and electronics industry. This

can be attributed to the accelerating demand for consumer electronics as well as industrial electronics. In line with this, the shifting trend towards miniaturization of electronic components resulting in the need for integration of multiple functions on a single substrate is fueling the market. Moreover, the rising adoption of hybrid circuits requiring a combination of analog and digital circuitry in numerous industrial applications is propelling the product demand on the global level. The market is further driven by the rapid expansion of automotive production, coupled with the rising integration of electronics in vehicles. Apart from this, rapid product utilization in the manufacturing of various medical devices such as biosensors, wearable devices, pacemakers, and implantable devices are creating lucrative opportunities in the market. Furthermore, continual technological advancements in the manufacturing processes, material science and design techniques leading to the advent of high-performance, robust, corrosion-resistant product variants are providing an impetus to the market. In addition to this, the growing adoption of industrial automation systems is resulting in the increasing usage of thin film devices in control, sensing, and monitoring applications, which, in turn, is providing a boost to the market. Some of the other factors contributing to the market include the increasing usage of IoT applications and devices, considerable growth in the telecommunications industry, and favorable government initiatives encouraging domestic manufacturing.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global thick film devices market, along with forecasts at the global, regional, and country levels from 2023-2028. Our report has categorized the market based on type and end-user.

#### Type Insights:

- Capacitors
- Resistors
- Photovoltaic cells
- Heaters
- Others

The report has provided a detailed breakup and analysis of the thick film devices market based on the type. This includes capacitors, resistors, photovoltaic cells, heaters, and others. According to the report, capacitors represented the largest segment.

#### End-user Insights:

- Automotive
- Healthcare
- Consumer Electronics
- Infrastructure
- Others

A detailed breakup and analysis of the thick film devices market based on the end-user

has also been provided in the report. This includes automotive, healthcare, consumer electronics, infrastructure, and others. According to the report, automotive accounted for the largest market share.

#### Regional Insights:

North America

United States

Canada

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

The report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, Asia Pacific was the largest market for thick film devices. Some of the factors driving the Asia Pacific thick film devices market included considerable growth in the electrical and electronics industry, widespread adoption of smart devices, rising trend of device miniaturization, inflating disposable income levels, etc.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in

the global thick film devices market. The detailed profiles of all major companies have been provided. Some of the companies covered include Bourns Inc., Ferro Technik BV, KOA Speer Electronics Inc. (KOA Corporation), Panasonic Corporation, Rohm Semiconductor GmbH, Samsung Electronics Co. Ltd., TE Connectivity Ltd, Thermo Heating Elements LLC, Vishay Intertechnology Inc., Watlow Electric Manufacturing Co., W?rth Elektronik GmbH & Co. KG., YAGEO Corp., etc. Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

#### Key Questions Answered in This Report:

How has the global thick film devices market performed so far, and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global thick film devices market?

What is the impact of each driver, restraint, and opportunity on the global thick film devices market?

What are the key regional markets?

Which countries represent the most attractive thick film devices market?

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

Which is the most attractive type in the thick film devices market?

What is the breakup of the market based on the end-user?

Which is the most attractive end-user in the thick film devices market?

What is the competitive structure of the global thick film devices market?

Who are the key players/companies in the global thick film devices market?

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