

Automotive MLCCs Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032

<https://marketpublishers.com/r/A78B8A4CEBF2EN.html>

Date: November 2024

Pages: 180

Price: US\$ 4,850.00 (Single User License)

ID: A78B8A4CEBF2EN

Abstracts

The Global Automotive MLCCs Market was valued at USD 2.9 billion in 2023 and is expected to grow at a CAGR of 5.6% from 2024 to 2032. The shift towards electric vehicles (EVs) drives the demand for MLCCs, particularly in power electronics, battery management systems, and electrical infrastructure. Unlike traditional combustion vehicles, modern EVs require more capacitors to support their complex electronics, including high-temperature capacitors for demanding applications.

The automotive power electronics sector is transforming, driving the expansion of the MLCCs market. Components such as inverters, converters, and power management systems now rely on high-performance capacitors that can endure extreme temperatures and electrical stress. The emergence of wide bandgap semiconductors, such as silicon carbide and gallium nitride, enables the development of capacitors capable of handling higher voltage and power density, opening new application areas.

Based on type, the automotive MLCC market from the general-purpose MLCC segment held over 35% of the share in 2023 and is projected to exceed USD 1.5 billion by 2032. Automotive electronics require capacitors that operate across a wide voltage range while delivering stable performance. Manufacturers are designing capacitors to serve a broad spectrum of applications, from low-power sensors to high-voltage EV powertrains, with voltage ratings ranging from 16V to 1000V.

In terms of voltage ratings, the automotive MLCCs market is divided into three segments: less than 50V, 50-200V, and more than 200V. The segment for MLCCs rated less than 50V is expected to surpass USD 2.6 billion by 2032. This growth is driven by the increasing integration of MLCCs with higher reliability into critical automotive

electronic systems. Manufacturers are developing new ceramic dielectric materials, such as X7R and COG/NP0, to improve temperature stability and reduce failure rates. Advanced manufacturing techniques, like laser trimming and precision screening, are being employed to ensure the consistency and reliability of automotive-grade MLCCs.

China's automotive MLCCs market held a dominant 51% share in 2023. The country has made significant strides in reducing dependence on foreign technology through heavy investments in domestic production. Chinese manufacturers are innovating advanced production techniques to compete with global players from Japan and Korea. Government support, in line with technology transfer policies and substantial investments in research, is accelerating technological advancements in China. These manufacturers are focused on producing high-reliability automotive-grade MLCCs, strengthening the local supply chain, and developing expertise in cutting-edge electronic components.

Contents

Report Content

CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Research design
 - 1.1.1 Research approach
 - 1.1.2 Data collection methods
- 1.2 Base estimates and calculations
 - 1.2.1 Base year calculation
 - 1.2.2 Key trends for market estimates
- 1.3 Forecast model
- 1.4 Primary research & validation
 - 1.4.1 Primary sources
 - 1.4.2 Data mining sources
- 1.5 Market definitions

CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Industry 360° synopsis, 2021 - 2032

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
- 3.2 Supplier landscape
 - 3.2.1 Raw material suppliers
 - 3.2.2 MLCC manufacturers
 - 3.2.3 Automotive OEM
 - 3.2.4 Service providers
 - 3.2.5 Technology integrators
 - 3.2.6 End users
- 3.3 Profit margin analysis
- 3.4 Cost breakdown analysis
 - 3.4.1 Material costs
 - 3.4.2 Manufacturing and processing costs
 - 3.4.3 Labour cost
 - 3.4.4 Distribution cost
 - 3.4.5 R & D costs

- 3.4.6 Others
- 3.5 Key news & initiatives
- 3.6 Regulatory landscape
- 3.7 Impact forces
 - 3.7.1 Growth drivers
 - 3.7.1.1 Growing vehicle electrification
 - 3.7.1.2 Increasing vehicle connectivity requirements
 - 3.7.1.3 Growth in vehicle power electronics
 - 3.7.1.4 Advancements in electrical component manufacturing technologies
 - 3.7.2 Industry pitfalls & challenges
 - 3.7.2.1 Electromagnetic compatibility issues
 - 3.7.2.2 Supply chain complexity
- 3.8 Growth potential analysis
- 3.9 Porter's analysis
- 3.10 PESTEL analysis

CHAPTER 4 COMPETITIVE LANDSCAPE, 2023

- 4.1 Introduction
- 4.2 Company market share analysis
- 4.3 Competitive positioning matrix
- 4.4 Strategic outlook matrix

CHAPTER 5 MARKET ESTIMATES & FORECAST, BY VEHICLE, 2021 - 2032 (\$BN, UNITS)

- 5.1 Key trends
- 5.2 Passenger vehicles
 - 5.2.1 Hatchback
 - 5.2.2 Sedan
 - 5.2.3 SUV
- 5.3 Commercial vehicles
 - 5.3.1 Light Commercial Vehicles (LCV)
 - 5.3.2 Heavy Commercial Vehicles (HCV)

CHAPTER 6 MARKET ESTIMATES & FORECAST, BY MLCC, 2021 - 2032 (\$BN, UNITS)

- 6.1 Key trends

- 6.2 General-purpose
- 6.3 High-capacitance
- 6.4 High-temperature
- 6.5 Soft-termination
- 6.6 Low-ESR (Equivalent Series Resistance)

CHAPTER 7 MARKET ESTIMATES & FORECAST, BY PROPULSION, 2021 - 2032 (\$BN, UNITS)

- 7.1 Key trends
- 7.2 ICE
- 7.3 Electric vehicles
 - 7.3.1 Battery Electric Vehicles (BEV)
 - 7.3.2 Plug-in Hybrid Electric Vehicles (PHEV)
 - 7.3.3 Hybrid Electric Vehicles (HEV)

CHAPTER 8 MARKET ESTIMATES & FORECAST, BY VOLTAGE, 2021 - 2032 (\$BN, UNITS)

- 8.1 Key trends
- 8.2 Less than 50V
- 8.3 50V-200V
- 8.4 More than 200V

CHAPTER 9 MARKET ESTIMATES & FORECAST, BY APPLICATION, 2021 - 2032 (\$BN, UNITS)

- 9.1 Key trends
- 9.2 Powertrain systems
- 9.3 Advanced driver assistance systems
- 9.4 Infotainment & connectivity
- 9.5 Body electronics
- 9.6 Safety systems
- 9.7 Battery management systems

CHAPTER 10 MARKET ESTIMATES & FORECAST, BY REGION, 2021 - 2032 (\$BN, UNITS)

- 10.1 Key trends

10.2 North America

10.2.1 U.S.

10.2.2 Canada

10.3 Europe

10.3.1 UK

10.3.2 Germany

10.3.3 France

10.3.4 Spain

10.3.5 Italy

10.3.6 Russia

10.3.7 Nordics

10.4 Asia Pacific

10.4.1 China

10.4.2 India

10.4.3 Japan

10.4.4 South Korea

10.4.5 ANZ

10.4.6 Southeast Asia

10.5 Latin America

10.5.1 Brazil

10.5.2 Mexico

10.5.3 Argentina

10.6 MEA

10.6.1 UAE

10.6.2 South Africa

10.6.3 Saudi Arabia

CHAPTER 11 COMPANY PROFILES

11.1 ADT

11.2 Cornell Dubilier

11.3 Darfon

11.4 Holy Stone Enterprise

11.5 Knowles Capacitors

11.6 Kyocera

11.7 Maruwa

11.8 Murata

11.9 NIC Components

11.10 Nippon Chemi-Con

- 11.11 Rohm Semiconductors
- 11.12 Samsung Electro-mechanics
- 11.13 Samwha Capacitor
- 11.14 Taiyo Yuden
- 11.15 TDK
- 11.16 Viking Tech
- 11.17 Vishay Intertechnology
- 11.18 Walsin Technologies
- 11.19 Würth Elektronik
- 11.20 Yageo Group

I would like to order

Product name: Automotive MLCCs Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032

Product link: <https://marketpublishers.com/r/A78B8A4CEBF2EN.html>

Price: US\$ 4,850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A78B8A4CEBF2EN.html>