



# **Global and China Automotive MLCC Industry Report, 2018-2023**

**December 2018**

## **STUDY GOAL AND OBJECTIVES**

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## **REPORT OBJECTIVES**

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## **INFORMATION SOURCES**

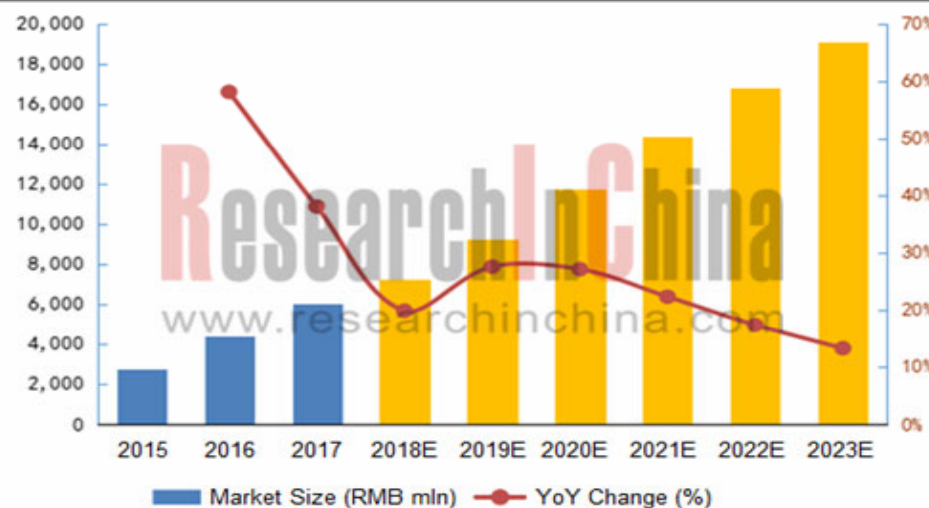
The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

In the automotive sector, MLCC is generally used in power system, safety system, comfort system, entertainment system and so forth. That intelligent driving functions prevail in cars brings strong demand for MLCC. As the intelligentization, networking and electrification of vehicles is galloping, it is expected by industry insiders that MLCC use in cars will soar by folds. In the era of intelligent connected battery electric vehicle (BEV), a single vehicle requires as 6 times MLCCs as that for a current common internal combustion engine.

In recent years, electrification of cars is gathering momentum worldwide, and battery electric vehicle (BEV) output keeps soaring year after year, coupled with a steady rise in output of hybrids/PHEVs and smart fuel-efficient models as well as common internal combustion engines going intelligent, all of which serve as a spur to the demand for MLCC. As estimated, the Chinese market size of automotive MLCC will report RMB19.053 billion in 2023 (as compared with RMB6.044 billion in 2017), showing a CAGR of 21.1% between 2017 and 2023.

**Chinese Automotive MLCC Market Size, 2016-2023E**



Source: Global and China Automotive MLCC Industry Report, 2018-2023

The well-known automotive MLCC vendors are mainly from Japan, South Korea, Europe & America, and Taiwan (China), of which Japanese companies consist of Murata, TDK, Taiyo Yuden, Kyocera, etc.; South Korean peer refers to Samsung Electro-Mechanics; and Taiwanese counterparts are Yageo and Walsin Technology.

Currently, Murata is the vendor boasting the most market shares worldwide (29%; about 40% in the automotive MLCC market), with the production capacity of 960 billion units/year for the moment. Murata has slashed production of low-end MLCC and related delivery has drawn to an end over the past two years. In 2018, Murata invested \$660 million for expanding production of MLCC for medical and automotive use and mass-production is anticipated in 2019.

Samsung Electro-Mechanics has sprung up and has been in the second place worldwide since it outperformed Japan-based TDK in 2009. Impacted by the explosion of Samsung NOTE7, Samsung Electro-Mechanics has tightened control on the quality of products and cut shipments over the recent years, while it planned to invest the additional 10 billion units/month MLCC for cars and 5G products.

TDK canceled product orders involving 700 million MLCCs in 360 models in 2017, and has transferred to focus on medium- and high-end products.

Chinese MLCC vendors has been developing apace over the recent years but are still engaged in supply for consumer electronics. Few companies like Fenghua Advanced Technology have rolled out the products in line with AEC-Q200 criterion. Due to weak strength, Chinese players are still hard to pose a threat to the MLCC giants from Japan, South Korea and Taiwan (China).

The report highlights the following:

- ◆MLCC industry overview (definition, classification, policies, etc.);
- ◆Global and China MLCC markets (market size, production capacity, industrial chains, competitive landscape, etc.);
- ◆Global and China automotive MLCC markets (market size, production capacity, competitive pattern, etc.);
- ◆Eleven automotive MLCC vendors including Murata, Samsung Electro-Mechanics, Kyocera, Taiyo Yuden, TDK, KEMET, Fenghua Advanced Technology, Walsin Technology, Yageo, HolyStone and Chemi-Con (profile, financials, hit products, R&D, manufacturing bases, technical features, etc.);
- ◆Eight manufacturers in the upstream of MLCC, including Sakai Chemical Industry, Ferro, Prosperities Dielectrics, Shandong Sinocera Functional Material, Nippon Chemical Industrial, SHOEI, Sumitomo Metal Industries, and ESL.

## Production Expansion Plans of Key Automotive MLCC Vendors Recently (Incomplete Statistics)

Vendor	Additional Capacity (billion units/month )	Time for Production	Applications
Murata	10-15	2019H2	Vehicle, medical, new energy
Samsung Electro-Mechanics	10	2019Q2	Vehicle, 5G
Taiyo Yuden	10	2019	Vehicle, industry
Yageo	5	Within 2018	High-end cellphones, IoT, vehicle
Walsin Technology	5	2019Q1	5G, vehicle, etc.

**1 Definition and Classification of MLCC**

- 1.1 Capacitor
  - 1.1.1 Classification of Capacitors
  - 1.1.2 Comparison between Capacitors
  - 1.1.3 Trend for Market Share of Various Capacitors
- 1.2 MLCC
  - 1.2.1 Classification of MLCC
  - 1.2.2 MLCC Fabrication Process
  - 1.2.3 MLCC Models
- 1.3 Development Trend

**2 MLCC Market As a Whole**

- 2.1 MLCC Market
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  - 2.2.1 Top Ten MLCC Vendors
  - 2.2.2 Competitive Landscape
  - 2.2.3 Market Share
  - 2.2.4 Production Expansion Plans of Key Vendors
  - 2.2.5 Presence of Key Vendors in China
- 2.3 MLCC Price
  - 2.3.1 Causes for MLCC Price Change
- 2.4 MLCC Industry Chain
  - 2.4.1 Upstream Materials
  - 2.4.2 Downstream Market Segments
  - 2.4.3 MLCC for Consumer Electronics
  - 2.4.4 MLCC for Industrial Use

**3 Automotive MLCC Market**

- 3.1 Key Passive Components Used in Vehicle
- 3.2 Vehicle Systems' Demand for MLCC
- 3.3 Automotive MLCC Market Size
- 3.4 Tendency of Automotive Demand for MLCC
- 3.5 Automotive MLCC Layout of MLCC Giants

**4 MLCC Vendors**

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  - 4.1.1 Performance
  - 4.1.2 Revenue Structure
  - 4.1.3 Automotive MLCC
  - 4.1.4 Footprints in China
  - 4.1.5 Production Capacity Plan
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  - 4.2.4 Capacity and Output
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4.4.6 Automotive MLCC Production Expansion Plan	4.8.6 MLCC Production Layout
4.4.7 Shanghai KYOCERA Electronics Co., Ltd.	4.8.7 Major Customers
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4.7.5 Automotive MLCC	4.11.2 Revenue Structure (by Product)
4.7.6 Dongguan Walsin Technology Electronics Co., Ltd.	4.11.3 Revenue Structure (by Region)

- 4.11.4 Automotive MLCC
- 4.11.5 Automotive MLCC in KVF Series
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  - 5.1.2 Key Products
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  - 5.2.3 Key Products-MLCC Plasma
- 5.3 Prosperities Dielectrics Co., Ltd.
  - 5.3.1 Profile
  - 5.3.2 MLCC Ceramic Powder
  - 5.3.3 MLCC Ceramic Powder
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