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Multilayer Ceramic Capacitor (MLCC) Market Research Report - Global Forecast 2032

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Description:

Global Multi-Layer Ceramic Capacitor (MLCC) Market Overview:

Multi-Layer Ceramic Capacitor (MLCC) Market Size was valued at USD 15.1 Billion in 2022. The Multi-Layer Ceramic Capacitor (MLCC) market industry is projected to grow from USD 15.9 Billion in 2023 to USD 24.03 Billion by 2032, exhibiting a compound annual growth rate (CAGR) of 5.30% during the forecast period (2023 - 2032). Increased adoption of Multi-Layer Ceramic Capacitors (MLCC)s, rising government initiatives and the requirement for optimum batteries are the key market drivers enhancing the market growth.

Global Multi-Layer Ceramic Capacitor (MLCC) Market Overview

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Multi-Layer Ceramic Capacitor (MLCC) Market Trends

• Growing adoption of Multi-Layer Ceramic Capacitor (MLCC) is driving the market growth

Market CAGR for multi-layer ceramic capacitor (MLCC) is being driven by the rising adoption of Multi-Layer Ceramic Capacitor (MLCC) (MLCCs) in a variety of equipment, including mobile phones, set-top boxes, and wireless devices. These capacitors' advantages, such as their excellent resilience against thermal shocks, are also anticipated to enhance their demand.

In addition to other consumer electronics, MLCCs are utilized in drones, wearable tech,smart TVs, camcorders, printers, computers, and laptops. The consumer electronics market is primarily due to the increasing propensity for using smart electronic gadgets and the shifting lifestyles of people. Any increase in consumer electronics demand would afterward increase the adoption of MLCCs.

Additionally, governments all over the world are promoting digitization more and more, which will encourage customers to adopt electronic devices. As a result, MLCC producers are concentrating especially on creating the smallest MLCCs that may be used in smartphones, wearable technology, health & fitness accessories, and other mobile devices. For MLCCs, the rapidly expanding IoT sector is creating new prospects. As a result, among other linked applications, MLCCs are employed more frequently in automated lighting, heating, and industrial automation. As a result, providers of IoT solutions they are building. Manufacturers are providing MLCCs with varying specifications related to power consumption, data processing speed and costs in keeping with this trend.

Due to the rising need for consumer electronics, such as smart televisions, smartphones, tablets, wearables, and high-end laptops, the market for MLCCs is anticipated to rise, especially in developing nations like China and India. The MLCC market is expanding due to rising disposable income levels and increased internet usage. Thus, driving the Multi-Layer Ceramic Capacitor (MLCC) market revenue.

Multi-Layer Ceramic Capacitor (MLCC) Market Segment Insights:

Multi-Layer Ceramic Capacitor (MLCC) Type Insights

The Multi-Layer Ceramic Capacitor (MLCC) Market segmentation, based on type, includes class I (NP0/C0G, U2J, Others) and Class II (X7R, X5R, Y2V, Z5U). The class I segment dominated the market, accounting for maximum market revenue. Unlike film capacitors, NP0/C0G MLCCs do not need special reflow profiles for surface installation. NP0/C0G MLCCs often have greater voltage ratings for a given capacitance inside a given case size. NP0/C0G MLCCs are ideal for a variety of applications, such as automation equipment, safety devices, remote power

management, power supply, inverters, smart meters, smart homes, smart/ features phones, servers and uninterruptible power supply (UPS) devices, motherboards, and white goods.

**Figure 1: Multi-Layer Ceramic Capacitor (MLCC) Market, by Type, 2022 & 2032 (USD Billion)**

Multi-Layer Ceramic Capacitor (MLCC) Market, by Type, 2022 & 2032

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

## Multi-Layer Ceramic Capacitor (MLCC) Application Insights

The Multi-Layer Ceramic Capacitor (MLCC) Market segmentation, based on application, includes consumer electronics, automotive, manufacturing, telecommunication, transportation, and healthcare. The automotive category generated the most income. These factors include the rising deployment of electronic devices that use MLCCs in automobiles. These automobiles using MLCCs are powertrains, infotainment devices, and vehicle frames. The new tactics and strategies have encouraged manufacturers to develop multi-layer ceramic capacitors, which will exactly be decided to cater to automobile applications. The development of MLCCs specifically designed for automotive applications, with a wide range of voltage options, case sizes, and capacitance values, has been encouraged by the trend of several manufacturers. Because they can endure the high temperatures typical for control circuits in such vehicles, MLCCs are also being used increasingly in electrically driven vehicles.

## Multi-Layer Ceramic Capacitor (MLCC) Regional Insights

By region, the study provides market insights into North America, Europe, Asia-Pacific and Rest of the World. The Asia-Pacific Multi-Layer Ceramic Capacitor (MLCC) market area will dominate this market, owing to the increasing use of MLCC-based electronic components and renewable energy products in the automobile sector. In addition, the growing demand for MLCCs from end-user sectors will boost market growth in this region.

Further, the major countries studied in the market report are The US, Canada, German, France, the UK, Italy, Spain, China, Japan, India, Australia, South Korea, and Brazil.

**Figure 2: Multi-Layer Ceramic Capacitor (MLCC) Market SHARE BY REGION 2022 (USD Billion)**

Multi-Layer Ceramic Capacitor (MLCC) Market SHARE BY REGION 2022

Source: Secondary Research, Primary Research, MRFR Database and Analyst Review

Europe's Multi-Layer Ceramic Capacitor (MLCC) market accounts for the second-largest market share due to the high presence of automotive manufacturers. Further, the German Multi-Layer Ceramic Capacitor (MLCC) market held the largest market share, and the UK Multi-Layer Ceramic Capacitor (MLCC) market was the fastest-growing market in the European region.

The North America Multi-Layer Ceramic Capacitor (MLCC) Market is anticipated to grow at the fastest CAGR from 2023 to 2032. This is due to the increasing adoption of MLCCs and rising per capita disposable income. Moreover, China's Multi-Layer Ceramic Capacitor (MLCC) market held the largest market share, and the Indian Multi-Layer Ceramic Capacitor (MLCC) market was the fastest-growing market in the Asia-Pacific region.

## Multi-Layer Ceramic Capacitor (MLCC) Key Market Players & Competitive Insights

Leading market players are investing heavily in research and development to expand their product lines, which will help the Multi-Layer Ceramic Capacitor (MLCC) market, grow even more. Market participants are also undertaking various strategic activities to expand their global footprint, with important market developments including new product launches, contractual agreements, mergers and acquisitions, higher investments, and collaboration with other organizations. To expand and survive in a more competitive and rising market climate, Multi-Layer Ceramic Capacitor (MLCC) industry must offer cost-effective items.

Manufacturing locally to minimize operational costs is one of the key business tactics manufacturers use in the global Multi-Layer Ceramic Capacitor (MLCC) industry to benefit clients and increase the market sector. In recent years, the Multi-Layer Ceramic Capacitor (MLCC) industry has offered some of the most significant advantages to MLCCs. Major Players in the Multi-Layer Ceramic Capacitor (MLCC) market, including Taiyo Yuden, TDK Corporation, Murata Mfg., Vishay (US), SEMCO (KR), Yageo (TW), TDK Corporation (JP), JDI (US), SAMWHA (KR), Kemet (US), Fenghua Advanced Technology (CN), EYANG (CN), MURATA (JP), Kyocera (JP), and others, are attempting to increase market demand by investing in research and development operations.

Murata Manufacturing Co., Ltd. is a Japanese company in Nagaokakyo, Kyoto, that produces electronic components. Urata offers a range of electronic goods, from power supply to communication and wireless modules. The company develops integrated components and RF filters based on various processing processes, including thin-film, thick-film, and LTCC (Low-Temperature Co-fired Ceramics). Murata researches cutting-edge RF component technology, which has helped the company win numerous patents. Murata is the owner of several ceramic capacitor-related patents and patent applications. For Instance: May 2022, The 4Vdc-rated ultra-thin LW reversed, low equivalent series inductor (ESL) multi-layer ceramic capacitor (MLCC) from Murata has a capacitance value of 1.0  $\mu\text{F}$   $\pm 20\%$ . The LLC152D70G105ME01 decoupling capacitor can be executed on the back of a processor package, with a footprint of 0204 inches (0.5 $\times$  1.0mm) and a maximum width of just 0.22 millimeters, lowering impedance of a power supply line.

KYOCERA Corporation is a Japanese multinational ceramic and electronics manufacturer headquartered in Kyoto, Japan. Kazuo Inamori established Kyoto Ceramic Company, Limited in 1959. In 1982, the company changed its name. It produces cutting tools, electronic components, semiconductor packages, solar power generation systems, telecommunications equipment, office document imaging equipment, industrial ceramics, and dental and medical implant systems parts. For Instance: In August 2022, KYOCERA declared to build a new MLCC manufacturing plant in Japan to meet the increasing demand for 5G, ADAS, and EV applications. Expanded MLCC multi-layer ceramic capacitor production at Kagoshima Kokubu Campus in Japan is anticipated to help meet the growing demand. Increased production is scheduled to begin in 2024.

## Key Companies in the Multi-Layer Ceramic Capacitor (MLCC) market include

- Taiyo Yuden
- TDK Corporation
- Murata Mfg.
- Vishay (US)
- SEMCO (KR)
- Yageo (TW)
- TDK Corporation (JP)
- Chaozhou Three-Circle (CN)
- JDI (US)
- SAMWHA (KR)
- Fenghua Advanced Technology (CN)
- EYANG (CN)
- MURATA (JP)
- Kyocera (JP)

## Multi-Layer Ceramic Capacitor (MLCC) Industry Developments

**April 2022:** Yageo Corporation increased its 01005 commercial high-frequency grade MLCC product range and capacity for X7R, X5R, and NPO to fulfill the need to miniaturize components in end-user electronic products.**February 2022:** Creating a joint venture between TTI Inc. and Taiyo Yuden (USA) Inc. Through this agreement, Taiyo Yuden can strengthen its bonds with its current clients while extending its sales channels into new regions, enabling companies from various sectors to accelerate the development of electronic gadgets.**April 2022:** Samsung Electro-Mechanics Co. revealed a multi-layer ceramic conductor capacitor (MLCC) for the automotive powertrain that can run efficiently at 150 degrees Celsius. The Korean electronic component company will supply 13 new MLCCs for the automotive powertrain to its clients globally.

## Multi-Layer Ceramic Capacitor (MLCC) Market Segmentation:

### Multi-Layer Ceramic Capacitor (MLCC) Type Outlook

- Class I (NP0/C0G, U2J)
- Class II (X7R, X5R, Y5V, Z5U)

### Multi-Layer Ceramic Capacitor (MLCC) Application Outlook

-

Consumer Electronics

- Automotive
- Manufacturing
- Telecommunication
- Transportation
- Healthcare

## Multi-Layer Ceramic Capacitor (MLCC) Regional Outlook

- North America
  - US
  - Canada
- Europe
  - Germany
  - France
  - UK
  - Italy
  - Spain
  - Rest of Europe
- Asia-Pacific
  - China
  - Japan
  - India
  - Australia
  - South Korea
  - Australia
  - Rest of Asia-Pacific

- Rest of the World

- Middle East

- Africa

- Latin America

**Table of Content:**

Contents

**TABLE OF CONTENTS**

**1 Executive Summary**

**2 Scope of the Report**

2.1 Market Definition

2.2 Scope of the Study

2.3 Research Objectives

2.4 Markets Structure

**3 Market Research Methodology**

3.1 Research Process

3.2 Secondary Research

3.3 Primary Research

3.4 Forecast Model

**4 Market Landscape**

4.1 Porter's Five Forces Analysis

4.1.1 Threat of New Entrants

4.1.2 Bargaining Power of Buyers

4.1.3 Threat of Substitutes

4.1.4 Segment Rivalry

4.1.5 Bargaining Power of Suppliers

4.2 Value Chain/Supply Chain of MLCC

**5 Market Landscape**

5.1 Introduction

5.2 Growth Drivers

5.3 Impact Analysis

5.4 Market Challenges

**6 Market Trends**

6.1 Introduction

6.2 Growth Trends

6.3 Impact Analysis

**7 MLCC Market by Type**

7.1 Introduction

7.2 Class I

7.2.1 Market Estimates & Forecast, 2023–2032

7.2.2 Market Estimates & Forecast by Region, 2023–2032

7.2.3 COG/ NPO

7.2.3.1 Market Estimates & Forecast, 2023–2032

7.2.3.2 Market Estimates & Forecast by Region, 2023–2032

7.2.4 U2J

7.2.4.1 Market Estimates & Forecast, 2023–2032

7.2.4.2 Market Estimates & Forecast by Region, 2023–2032

7.2.5 Others

7.2.5.1 Market Estimates & Forecast, 2023–2032

7.2.5.2 Market Estimates & Forecast by Region, 2023–2032

7.3 Class II

7.3.1 Market Estimates & Forecast, 2023–2032

7.3.2 Market Estimates & Forecast by Region, 2023–2032

7.3.3 X7R

7.3.3.1 Market Estimates & Forecast, 2023–2032

7.3.3.2 Market Estimates & Forecast by Region, 2023–2032

7.3.4 X5R

7.3.4.1 Market Estimates & Forecast, 2023–2032

7.3.4.2 Market Estimates & Forecast by Region, 2023–2032

7.3.5 Y5V

7.3.5.1 Market Estimates & Forecast, 2023–2032

7.3.5.2 Market Estimates & Forecast by Region, 2023–2032

7.3.6 Z5U

7.3.6.1 Market Estimates & Forecast, 2023–2032

7.3.6.2 Market Estimates & Forecast by Region, 2023–2032

7.3.7 Others

7.3.7.1 Market Estimates & Forecast, 2023–2032

7.3.7.2 Market Estimates & Forecast by Region, 2023–2032

**8 MLCC Market by Application**

8.1 Introduction

8.2 Consumer Electronics

8.2.1 Market Estimates & Forecast, 2023–2032

8.2.2 Market Estimates & Forecast by Region, 2023–2032

8.3 Automotive

8.3.1 Market Estimates & Forecast, 2023–2032

8.3.2 Market Estimates & Forecast by Region, 2023–2032

8.4 Manufacturing

8.4.1 Market Estimates & Forecast, 2023–2032

8.4.2	Market Estimates & Forecast by Region, 2023–2032
8.5	Healthcare
8.5.1	Market Estimates & Forecast, 2023–2032
8.5.2	Market Estimates & Forecast by Region, 2023–2032
8.6	Others
8.6.1	Market Estimates & Forecast, 2023–2032
8.6.2	Market Estimates & Forecast by Region, 2023–2032
<b>9</b>	<b>MLCC Market by Region</b>
9.1	Introduction
9.2	North America
9.2.1	Market Estimates & Forecast by Country, 2023–2032
9.2.2	Market Estimates & Forecast by Type, 2023–2032
9.2.3	Market Estimates & Forecast by Application, 2023–2032
9.2.4	US
9.2.4.1	Market Estimates & Forecast by Type, 2023–2032
9.2.4.2	Market Estimates & Forecast by Application, 2023–2032
9.2.5	Canada
9.2.5.1	Market Estimates & Forecast by Type, 2023–2032
9.2.5.2	Market Estimates & Forecast by Application, 2023–2032
9.2.6	Mexico
9.2.6.1	Market Estimates & Forecast by Type, 2023–2032
9.2.6.2	Market Estimates & Forecast by Application, 2023–2032
9.3	Europe
9.3.1	Market Estimates & Forecast by Country, 2023–2032
9.3.2	Market Estimates & Forecast by Type, 2023–2032
9.3.3	Market Estimates & Forecast by Application, 2023–2032
9.3.4	Germany
9.3.4.1	Market Estimates & Forecast by Type, 2023–2032
9.3.4.2	Market Estimates & Forecast by Application, 2023–2032
9.3.5	UK
9.3.5.1	Market Estimates & Forecast by Type, 2023–2032
9.3.5.2	Market Estimates & Forecast by Application, 2023–2032
9.3.6	France
9.3.6.1	Market Estimates & Forecast by Type, 2023–2032
9.3.6.2	Market Estimates & Forecast by Application, 2023–2032
9.3.7	Rest of Europe
9.3.7.1	Market Estimates & Forecast by Type, 2023–2032
9.3.7.2	Market Estimates & Forecast by Application, 2023–2032
9.4	Asia-Pacific
9.4.1	Market Estimates & Forecast by Country, 2023–2032
9.4.2	Market Estimates & Forecast by Type, 2023–2032
9.4.3	Market Estimates & Forecast by Application, 2023–2032
9.4.4	China
9.4.4.1	Market Estimates & Forecast by Type, 2023–2032
9.4.4.2	Market Estimates & Forecast by Application, 2023–2032
9.4.5	India
9.4.5.1	Market Estimates & Forecast by Type, 2023–2032
9.4.5.2	Market Estimates & Forecast by Application, 2023–2032
9.4.6	Japan
9.4.6.1	Market Estimates & Forecast by Type, 2023–2032
9.4.6.2	Market Estimates & Forecast by Application, 2023–2032
9.4.7	Rest of Asia-Pacific
9.4.7.1	Market Estimates & Forecast by Type, 2023–2032
9.4.7.2	Market Estimates & Forecast by Application, 2023–2032
9.5	Rest of the World
9.5.1	Market Estimates & Forecast by Country, 2023–2032
9.5.2	Market Estimates & Forecast by Type, 2023–2032
9.5.3	Market Estimates & Forecast by Application, 2023–2032
9.5.4	Middle East & Africa
9.5.4.1	Market Estimates & Forecast, by Type, 2023–2032
9.5.4.2	Market Estimates & Forecast, by Application, 2023–2032
9.5.5	South America
9.5.5.1	Market Estimates & Forecast by Type, 2023–2032
9.5.5.2	Market Estimates & Forecast by Application, 2023–2032
<b>10</b>	<b>Competitive Landscape</b>
<b>11</b>	<b>Company Profiles</b>
11.1	Murata Manufacturing Co., Ltd.
11.1.1	Company Overview
11.1.2	Product/Business Segment Overview
11.1.3	Financial Updates
11.1.4	Key Developments
11.1.5	SWOT Analysis
11.1.6	Key Strategy
11.2	Samsung Electro-Mechanics
11.2.1	Company Overview
11.2.2	Product/Business Segment Overview
11.2.3	Financial Updates
11.2.4	Key Developments
11.2.5	SWOT Analysis
11.2.6	Key Strategy
11.3	TDK Corporation
11.3.1	Company Overview
11.3.2	Product/Business Segment Overview
11.3.3	Financial Updates
11.3.4	Key Developments
11.3.5	SWOT Analysis
11.3.6	Key Strategy
11.4	AVX Corporation
11.4.1	Company Overview
11.4.2	Product/Business Segment Overview
11.4.3	Financial Updates
11.4.4	Key Developments
11.4.5	SWOT Analysis

11.4.6	Key Strategy
11.5	API Technologies Corp.
11.5.1	Company Overview
11.5.2	Product/Business Segment Overview
11.5.3	Financial Updates
11.5.4	Key Developments
11.5.5	SWOT Analysis
11.5.6	Key Strategy
11.6	Würth Elektronik GmbH & Co. KG
11.6.1	Company Overview
11.6.2	Product/Business Segment Overview
11.6.3	Financial Updates
11.6.4	Key Developments
11.6.5	SWOT Analysis
11.6.6	Key Strategy
11.7	Taiyo Yuden Co. Ltd.
11.7.1	Company Overview
11.7.2	Product/Business Segment Overview
11.7.3	Financial Updates
11.7.4	Key Developments
11.7.5	SWOT Analysis
11.7.6	Key Strategy
11.8	YAGEO Corporation
11.8.1	Company Overview
11.8.2	Product/Business Segment Overview
11.8.3	Financial Updates
11.8.4	Key Developments
11.8.5	SWOT Analysis
11.8.6	Key Strategy
11.9	Walsin Technology Corporation
11.9.1	Company Overview
11.9.2	Product/Business Segment Overview
11.9.3	Financial Updates
11.9.4	Key Developments
11.9.5	SWOT Analysis
11.9.6	Key Strategy
11.10	KEMET
11.10.1	Company Overview
11.10.2	Product/Business Segment Overview
11.10.3	Financial Updates
11.10.4	Key Developments
11.10.5	SWOT Analysis
11.10.6	Key Strategy
<b>12</b>	<b>Conclusion</b>
LIST OF TABLES	
Table 1	Global MLCC Market, by Region, 2023–2032
Table 2	North America: MLCC Market, by Country, 2023–2032
Table 3	Europe: MLCC Market, by Country, 2023–2032
Table 4	Asia-Pacific: MLCC Market, by Country, 2023–2032
Table 5	Middle East & Africa: MLCC Market, by Country, 2023–2032
Table 6	South America: MLCC Market, by Country, 2023–2032
Table 7	Global MLCC Type Market, by Region, 2023–2032
Table 8	North America: MLCC Type Market, by Country, 2023–2032
Table 9	Europe: MLCC Type Market, by Country, 2023–2032
Table 10	Asia-Pacific: MLCC Type Market, by Country, 2023–2032
Table 11	Middle East & Africa: MLCC Type Market, by Country, 2023–2032
Table 12	South America: MLCC Type Market, by Country, 2023–2032
Table 13	Global MLCC Application Market, by Region, 2023–2032
Table 14	North America: MLCC Application Market, by Country, 2023–2032
Table 15	Europe: MLCC Application Market, by Country, 2023–2032
Table 16	Asia-Pacific: MLCC Application Market, by Country, 2023–2032
Table 17	Middle East & Africa: MLCC Application Market, by Country, 2023–2032
Table 18	South America: MLCC Application Market, by Country, 2023–2032
LIST OF FIGURES	
FIGURE 1	Global MLCC Market Segmentation
FIGURE 2	Forecast Methodology
FIGURE 3	Porter's Five Forces Analysis of Global MLCC Market
FIGURE 4	Value Chain of Global MLCC Market
FIGURE 5	Share of the Global MLCC Market in 2020, by Country (in %)
FIGURE 6	Global MLCC Market, 2023–2032
FIGURE 7	Global MLCC Market Size, by Type, 2020
FIGURE 8	Global MLCC Market Size, by Application, 2020