

# **Resonators Market by Type (MEMS Resonators, Crystal Resonators), Application (Telecommunication, Alarms and Detection, Military and Space, Automotive, and Others), and Region 2024-2032**

<https://marketpublishers.com/r/R6E70313A388EN.html>

Date: March 2024

Pages: 138

Price: US\$ 2,999.00 (Single User License)

ID: R6E70313A388EN

## **Abstracts**

The global resonators market size reached US\$ 9.3 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 38.7 Billion by 2032, exhibiting a growth rate (CAGR) of 16.6% during 2024-2032. The significant expansion of the automotive sector, the proliferation of smart consumer devices, the large-scale employment of resonators in medical equipment and devices, and the expanding product applications in various industries represent some of the key factors driving the market.

Resonators are devices that are used to modulate sound or vibration. They cancel out a specific range of sound frequencies by eliminating harsh pitches or ranges. As a result, resonators are used across the automotive sector to modulate the exhaust sound and reduce the decibel level before it reaches the muffler. They are an essential part of a car's sound control strategy and can be used to complement the existing setup, eliminate drones while preserving the desired note, or replace mufflers/baffling. In addition to this, they enable frequency filtering, signal amplification, and signal processing. Consequently, they are widely used in musical instruments, electronic circuits, and optical devices. Besides this, they are also utilized in scientific research and can provide valuable information about the properties of different materials, such as their mechanical, electrical, or optical characteristics.

### **Resonators Market Trends:**

The bolstering growth of the automotive sector, wherein resonators are used across various applications such as infotainment systems, advanced driver-assistance systems

(ADAS), and engine control units, represents the prime factor driving the market growth. Besides this, the growing adoption of smartphones, tablets, smartwatches, and other consumer electronic devices is creating a favorable outlook for the market as resonators provide better connectivity and performance. Moreover, the increasing use of resonators across various wireless networks, including fifth generation (5G) and Wi-Fi, for signal processing, frequency control, and data transmission is acting as another significant growth-inducing factor. In line with this, widespread product adoption across the bolstering aerospace and defense sectors in navigation systems, satellite communication, radar systems, and military applications is providing lucrative opportunities for the market growth. In addition to this, numerous medical devices and equipment rely on resonators for precise frequency control and signal processing, supporting applications like imaging, diagnostics, and patient monitoring, which is strengthening the market growth. Concurrent with this, the increasing adoption of automation and robotics in manufacturing, logistics, and energy industries is propelling the product demand to enable accurate timing, control, and synchronization in these pieces of machinery. Furthermore, ongoing research and development (R&D) efforts to improve resonator designs, enhance their performance, and expand their applications, combined with the advent of advanced surface acoustic wave (SAW), MEMS, and photonic resonators, are propelling the market forward.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global resonators market, along with forecasts at the global, regional, and country levels from 2024-2032. Our report has categorized the market based on type and application.

#### Type Insights:

MEMS Resonators

Crystal Resonators

The report has provided a detailed breakup and analysis of the resonators market based on the type. This includes MEMS and crystal resonators. According to the report, crystal resonators represented the largest segment.

#### Application Insights:

Telecommunication

Alarms and Detection

Military and Space

Automotive

Others

A detailed breakup and analysis of the resonators market based on the application has also been provided in the report. This includes telecommunication, alarms and detection, military and space, automotive, and others.

#### 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, North

America was the largest market for resonators. Some of the factors driving the North America resonators market included the rising demand for passenger and commercial vehicles, the proliferation of numerous consumer devices, and the bolstering growth of the healthcare sector.

#### Competitive Landscape:

The report has also provided a comprehensive analysis of the competitive landscape in the global resonators market. Detailed profiles of all major companies have been provided. Some of the companies covered include Abracon LLC, IQD Frequency Products Ltd (Adolf W?rth GmbH & Co. KG), Microchip Technology Inc, Murata Manufacturing Co., Ltd., SHOULDER Electronics Limited, SiTime Corporation, Token Electronics Industry Co. Ltd., TXC Corporation, 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 resonators market performed so far, and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global resonators market?

What is the impact of each driver, restraint, and opportunity on the global resonators market?

What are the key regional markets?

Which countries represent the most attractive resonators market?

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

Which is the most attractive type in the resonators market?

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

Which is the most attractive application in the resonators market?

What is the competitive structure of the global resonators market?

Who are the key players/companies in the global resonators market?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL RESONATORS MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY TYPE**

- 6.1 MEMS Resonators
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Crystal Resonators
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast

## **7 MARKET BREAKUP BY APPLICATION**

- 7.1 Telecommunication
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Alarms and Detection
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Military and Space
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 Automotive
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast
- 7.5 Others
  - 7.5.1 Market Trends
  - 7.5.2 Market Forecast

## **8 MARKET BREAKUP BY REGION**

- 8.1 North America
  - 8.1.1 United States
    - 8.1.1.1 Market Trends
    - 8.1.1.2 Market Forecast
  - 8.1.2 Canada
    - 8.1.2.1 Market Trends
    - 8.1.2.2 Market Forecast
- 8.2 Asia-Pacific
  - 8.2.1 China
    - 8.2.1.1 Market Trends
    - 8.2.1.2 Market Forecast
  - 8.2.2 Japan
    - 8.2.2.1 Market Trends
    - 8.2.2.2 Market Forecast
  - 8.2.3 India
    - 8.2.3.1 Market Trends
    - 8.2.3.2 Market Forecast
  - 8.2.4 South Korea
    - 8.2.4.1 Market Trends

- 8.2.4.2 Market Forecast
- 8.2.5 Australia
  - 8.2.5.1 Market Trends
  - 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
  - 8.2.6.1 Market Trends
  - 8.2.6.2 Market Forecast
- 8.2.7 Others
  - 8.2.7.1 Market Trends
  - 8.2.7.2 Market Forecast
- 8.3 Europe
  - 8.3.1 Germany
    - 8.3.1.1 Market Trends
    - 8.3.1.2 Market Forecast
  - 8.3.2 France
    - 8.3.2.1 Market Trends
    - 8.3.2.2 Market Forecast
  - 8.3.3 United Kingdom
    - 8.3.3.1 Market Trends
    - 8.3.3.2 Market Forecast
  - 8.3.4 Italy
    - 8.3.4.1 Market Trends
    - 8.3.4.2 Market Forecast
  - 8.3.5 Spain
    - 8.3.5.1 Market Trends
    - 8.3.5.2 Market Forecast
  - 8.3.6 Russia
    - 8.3.6.1 Market Trends
    - 8.3.6.2 Market Forecast
  - 8.3.7 Others
    - 8.3.7.1 Market Trends
    - 8.3.7.2 Market Forecast
- 8.4 Latin America
  - 8.4.1 Brazil
    - 8.4.1.1 Market Trends
    - 8.4.1.2 Market Forecast
  - 8.4.2 Mexico
    - 8.4.2.1 Market Trends
    - 8.4.2.2 Market Forecast

#### 8.4.3 Others

##### 8.4.3.1 Market Trends

##### 8.4.3.2 Market Forecast

#### 8.5 Middle East and Africa

##### 8.5.1 Market Trends

##### 8.5.2 Market Breakup by Country

##### 8.5.3 Market Forecast

## **9 DRIVERS, RESTRAINTS, AND OPPORTUNITIES**

### 9.1 Overview

### 9.2 Drivers

### 9.3 Restraints

### 9.4 Opportunities

## **10 VALUE CHAIN ANALYSIS**

## **11 PORTERS FIVE FORCES ANALYSIS**

### 11.1 Overview

### 11.2 Bargaining Power of Buyers

### 11.3 Bargaining Power of Suppliers

### 11.4 Degree of Competition

### 11.5 Threat of New Entrants

### 11.6 Threat of Substitutes

## **12 PRICE ANALYSIS**

## **13 COMPETITIVE LANDSCAPE**

### 13.1 Market Structure

### 13.2 Key Players

### 13.3 Profiles of Key Players

#### 13.3.1 Abracon LLC

##### 13.3.1.1 Company Overview

##### 13.3.1.2 Product Portfolio

#### 13.3.2 IQD Frequency Products Ltd (Adolf W?rth GmbH & Co. KG)

##### 13.3.2.1 Company Overview

##### 13.3.2.2 Product Portfolio

### 13.3.3 Microchip Technology Inc

#### 13.3.3.1 Company Overview

#### 13.3.3.2 Product Portfolio

#### 13.3.3.3 Financials

#### 13.3.3.4 SWOT Analysis

### 13.3.4 Murata Manufacturing Co., Ltd.

#### 13.3.4.1 Company Overview

#### 13.3.4.2 Product Portfolio

#### 13.3.4.3 Financials

#### 13.3.4.4 SWOT Analysis

### 13.3.5 SHOULDER Electronics Limited

#### 13.3.5.1 Company Overview

#### 13.3.5.2 Product Portfolio

### 13.3.6 SiTime Corporation

#### 13.3.6.1 Company Overview

#### 13.3.6.2 Product Portfolio

#### 13.3.6.3 Financials

### 13.3.7 Token Electronics Industry Co. Ltd.

#### 13.3.7.1 Company Overview

#### 13.3.7.2 Product Portfolio

### 13.3.8 TXC Corporation

#### 13.3.8.1 Company Overview

#### 13.3.8.2 Product Portfolio

#### 13.3.8.3 Financials

Kindly note that this only represents a partial list of companies, and the complete list has been provided in the report.

## List Of Tables

### LIST OF TABLES

Table 1: Global: Resonators Market: Key Industry Highlights, 2023 & 2032

Table 2: Global: Resonators Market Forecast: Breakup by Type (in Million US\$),  
2024-2032

Table 3: Global: Resonators Market Forecast: Breakup by Application (in Million US\$),  
2024-2032

Table 4: Global: Resonators Market Forecast: Breakup by Region (in Million US\$),  
2024-2032

Table 5: Global: Resonators Market: Competitive Structure

Table 6: Global: Resonators Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Resonators Market: Major Drivers and Challenges

Figure 2: Global: Resonators Market: Sales Value (in Billion US\$), 2018-2023

Figure 3: Global: Resonators Market Forecast: Sales Value (in Billion US\$), 2024-2032

Figure 4: Global: Resonators Market: Breakup by Type (in %), 2023

Figure 5: Global: Resonators Market: Breakup by Application (in %), 2023

Figure 6: Global: Resonators Market: Breakup by Region (in %), 2023

Figure 7: Global: Resonators (MEMS Resonators) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 8: Global: Resonators (MEMS Resonators) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 9: Global: Resonators (Crystal Resonators) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 10: Global: Resonators (Crystal Resonators) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 11: Global: Resonators (Telecommunication) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 12: Global: Resonators (Telecommunication) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 13: Global: Resonators (Alarms and Detection) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 14: Global: Resonators (Alarms and Detection) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 15: Global: Resonators (Military and Space) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 16: Global: Resonators (Military and Space) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 17: Global: Resonators (Automotive) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 18: Global: Resonators (Automotive) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 19: Global: Resonators (Other Applications) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 20: Global: Resonators (Other Applications) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 21: North America: Resonators Market: Sales Value (in Million US\$), 2018 &

*Resonators Market by Type (MEMS Resonators, Crystal Resonators), Application (Telecommunication, Alarms and De...*

2023

Figure 22: North America: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 23: United States: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 24: United States: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 25: Canada: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 26: Canada: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 27: Asia-Pacific: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 28: Asia-Pacific: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 29: China: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 30: China: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 31: Japan: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 32: Japan: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 33: India: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 34: India: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 35: South Korea: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 36: South Korea: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 37: Australia: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 38: Australia: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 39: Indonesia: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 40: Indonesia: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 41: Others: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 42: Others: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 43: Europe: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 44: Europe: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 45: Germany: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 46: Germany: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 47: France: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 48: France: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 49: United Kingdom: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 50: United Kingdom: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 51: Italy: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 52: Italy: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 53: Spain: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 54: Spain: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 55: Russia: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 56: Russia: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 57: Others: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 58: Others: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 59: Latin America: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 60: Latin America: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 61: Brazil: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 62: Brazil: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 63: Mexico: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 64: Mexico: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 65: Others: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 66: Others: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 67: Middle East and Africa: Resonators Market: Sales Value (in Million US\$), 2018 & 2023

Figure 68: Middle East and Africa: Resonators Market: Breakup by Country (in %), 2023

Figure 69: Middle East and Africa: Resonators Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 70: Global: Resonators Industry: Drivers, Restraints, and Opportunities

Figure 71: Global: Resonators Industry: Value Chain Analysis

Figure 72: Global: Resonators Industry: Porter's Five Forces Analysis

## I would like to order

Product name: Resonators Market by Type (MEMS Resonators, Crystal Resonators), Application (Telecommunication, Alarms and Detection, Military and Space, Automotive, and Others), and Region 2024-2032

Product link: <https://marketpublishers.com/r/R6E70313A388EN.html>

Price: US\$ 2,999.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/R6E70313A388EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:

Last name:

Email:

Company:

Address:

City:

Zip code:

Country:

Tel:

Fax:

Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970