

## **Timing Devices Market by Type (Oscillators, Atomic Clocks, Clock Generators, Clock Buffers, Jitter Attenuators), Material (Crystal, Silicon, Ceramic), Vertical (Consumer Electronics, Automotive) and Region - Global Forecast to 2030**

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### **Report description:**

The timing devices market is projected to grow from USD 5.5 billion in 2023 and is projected to reach USD 8.9 billion by 2030; it is expected to grow at a CAGR of 7.1% from 2023 to 2030.

The advancements in the telecommunications industry, rising adoption of timing devices in smartphones and smart wearables has paved way for their growth in recent years. However, Compatibility and integration issues associated with timing devices is limiting the growth of the timing devices market.

"Telecommunications and networking vertical segment of the timing devices market to hold second largest market share during the forecast period."

Oscillators, clock generators, and jitter attenuators play a major role in telecommunications and networking industry vertical. This industry is rapidly growing with the increasing deployment of 5G networks and the introduction of 6G networks. The deployment of 5G/6G networks has resulted in an increase in the number of telecom base stations, communication devices, and other communication infrastructure products in recent years. The number of timing components used for networking and telecommunications varies from 8 to 15 per base station, and even more in some cases. The number of crystals used in base stations varies from 8 to 10 per base station.

"Crystal Oscillators to account for the largest share of the timing devices market for oscillators during the forecast period." Crystal oscillators are expected to account for the largest share of the timing devices market for oscillators during the forecast period.

Crystal oscillators provide high accuracy and stability in generating clock signals. The inherent properties of quartz crystals make them excellent frequency references, ensuring minimal frequency drift over time. Crystal oscillators generally exhibit low levels of jitter and phase noise, making them suitable for applications that demand clean clock signals for data integrity and system performance. Crystal oscillators are used in a wide range of applications, including consumer electronics, telecommunications,

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industrial automation, automotive systems, aerospace, and more. Crystal oscillators are compatible with various integrated circuits (ICs) and components, making them versatile for use with a wide range of electronic devices.

"TCXOs to exhibit highest growth for the timing devices market for crystal oscillators type during forecast period"

Temperature-compensated crystal oscillators (TCXOs) to exhibit highest growth for the timing devices market for crystal oscillators type during forecast period. TCXOs are specifically designed to be able to handle large variations in ambient temperature. TCXOs are cost-effective, consume less power, and offer a good mid-range solution to power and cost-sensitive applications. These oscillating crystals start up rapidly, require little power, and are compact, which makes them ideal for use in handheld, battery-powered communications devices. These oscillators have applications in mobile phones, wireless equipment, satellite communication, GPS, coaxial cable communication, fiber optics communication, portable telephones, cellular radios, and others.

"North America to witness significant growth for the timing devices market during the forecast period" North America is projected to exhibit significant growth for the timing devices market during the forecast period. It is the second-largest market for timing devices. The government in the region has provided a conducive environment for conducting research and innovations in terms of advancing technologies. The augmented R&D capabilities are providing new opportunities for the adoption of timing devices in various industries such as consumer electronics, automotive, and healthcare. Hence, the demand for timing devices in North America is likely to grow in the near future.

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the timing devices market space. The break-up of primary participants for the report has been shown below: By Company Type: Tier 1 - 40%, Tier 2 - 40%, and Tier 3 - 20% By Designation: C-level Executives - 40%, Directors -40%, and Others - 20% By Region: North America -30%, Asia Pacific- 40%, Europe - 20%, and RoW - 10%

The report profiles key players in timing devices market with their respective market ranking analysis. Prominent players profiled in this report include Seiko Epson Corporation (Japan), Nihon Dempa Kogyo Co., Ltd. (Japan), TXC Corporation (Taiwan), Kyocera Corporation (Japan), Rakon Limited (New Zealand), Renesas Electronics Corporation (Japan), Infineon Technologies AG (Germany), Microchip Technology Inc. (US), Texas Instruments (US), Abracon (US), IQD Frequency Products Ltd. (UK), NXP Semiconductors N.V. (Netherlands), STMicroelectronics (Switzerland), SiTime Corporation (US), MtronPTI (US), CTS Corporation (US), Diodes Incorporated (US), ON Semiconductor (US), Crystek Corporation (US), Greenray Industries, Inc. (US), Frequency Electronics, Inc. (US), Oscilloquartz (Switzerland), AccuBeat Limited (Israel), Connor-Winfield Corporation (US), Mercury Electronic Ind. Co., Ltd. (Taiwan) .

**Research Coverage:** This research report categorizes the timing devices market on the basis of type, material, vertical and region. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the timing devices market and forecasts the same till 2030. Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the timing devices market ecosystem.

**Key Benefits of Buying the Report** The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall timing devices market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and to plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

-□Analysis of key drivers (Increasing adoption of advanced automotive electronics, Surge in the demand for healthcare and medical equipment, Advancements in the telecommunications industry, Rising adoption of timing devices in smartphones and smart wearables), restraints (Compatibility and integration issues associated with timing devices, High development costs of timing devices), opportunities (Growing need for high-precision timing and frequency stability due to network densification, Rising need for electronic device miniaturization, improved performance, and increased functionality, Augmented global demand for

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networking applications) and challenges (Difficulty in achieving customizations and small form factors ) influencing the growth of the timing devices market.

-□Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the timing devices market.

-□Market Development: Comprehensive information about lucrative markets - the report analyses the timing devices market across varied regions

-□Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the timing devices market.

-□Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Seiko Epson Corporation (Japan), Nihon Dempa Kogyo Co., Ltd. (Japan), TXC Corporation (Taiwan), Kyocera Corporation (Japan), Rakon Limited (New Zealand), among others in the timing devices market.

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## Timing Devices Market by Type (Oscillators, Atomic Clocks, Clock Generators, Clock Buffers, Jitter Attenuators), Material (Crystal, Silicon, Ceramic), Vertical (Consumer Electronics, Automotive) and Region - Global Forecast to 2030

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