

**Middle East & Africa Atomic Clock Market Forecast to 2028 - COVID-19 Impact and Regional Analysis - by Type (Rubidium Atomic Clock and CSAC, Cesium Atomic Clock, and Hydrogen Maser Atomic Clock) and Application (Space and Military/Aerospace, Scientific and Metrology Research, Telecom and Broadcasting, and Other Applications)**

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**AVAILABLE LICENSES:**

- Single User Price \$3000.00
- Site Price \$4000.00
- Enterprise Price \$5000.00

**Report description:**

The Middle East & Africa atomic clock market is expected to grow from US\$ 34.36 million in 2022 to US\$ 46.84 million by 2028. It is estimated to grow at a CAGR of 5.3% from 2022 to 2028.

High Demand from Metrology Station Owing to a Time-Sensitive Applications is Driving the Middle East & Africa Atomic Clock Market

Since invention in the middle of the twentieth century, atomic clocks have undergone huge developments and improvements. Various applications of atomic clocks in metrology and fundamental physics have been made possible by the constant improvement in their accuracy and stability. Therefore, owing to the time-sensitive applications, there is a high demand for atomic clocks from meteorology stations. GNSS satellite positioning also depends on the propagation that the signal takes to travel from the satellite to the receiver. Therefore, position error is implied; thus, navigation systems rely on the performance of clock. In addition, atomic clocks are also used in terrestrial stations for synchronizing clocks in orbit and characterize time systems. Also, atomic clocks conduct the following research activities in metrology:

- Techniques of clock comparison and synchronization
- Algorithms and mathematical modeling
- o to recognize and disseminate the UTC(IT) Italian Standard Time

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o to contribute to the Coordinated UTC Universal Time

In July 2022, MASINDI Uganda National Metrological Authority (UNMA) started the construction of a weather station in Masindi district in Western Uganda. The facility will house gadgets that measure the speed of wind, wind direction, rainfall, solar radiation, air temperature, air pressure, and relative humidity among others. Therefore, growing establishments of the meteorological weather stations across the region is anticipated to increase the demand for atomic clocks for accurate weather monitoring and information. Meade Instruments, a leading manufacturing company offers weather station atomic clock that displays the indoor-outdoor humidity and temperature and has a minimum/maximum record for both temperature displays. The clock provides weather forecast, has comfort level indicators, a moon phase display, a calendar and a dual crescendo alarm with snooze function. Such factors are anticipated to propel the demands for atomic clocks in the Metrology Stations across the region.

#### Middle East & Africa Atomic Clock Market Overview

The Middle East & Africa has abundant natural resources and manpower, and it contributes a substantial share to the global oil & gas sector. Different Middle East & Africa countries differ substantially in terms of living standards, natural resources, economic growth, population, technology landscape, and geographic area. Despite the mounting unemployment rate and uncertain oil prices, countries such as UAE, Saudi Arabia, and South Africa are at the forefront of adopting transformative advanced technologies such as smart homes and self-driving cars. The presence of major atomic clock market players-such as AccuBeat Ltd. (Israel)-is one of the significant factors contributing to the Middle East & Africa atomic clock market 's growth in the Middle East & Africa. AccuBeat Ltd is a leading manufacturer of frequency and timing solutions for aerospace, defense, telecommunications, and research applications, and it clientele includes the Israeli Ministry of Defense, Elta (a subsidiary of IAI), Rafael, U.S. Air Force, ECIL (India), Israel Aircraft Industries (IAI), Vectron International, Larsen and Tourbo (India), Elbit, etc. AccuBeat, world leader in atomic clock products and solutions, was selected by the European Space Agency to develop and produce an Ultra Stable Oscillator (USO), for Deep Space Exploration. AccuBeat's satellite will be launched in 2022 and travel some 600 million Kms to the planet Jupiter, where it will explore the planet's atmosphere and study its icy moons. Further, the automotive sector is a crucial vertical in South Africa. Owing to the COVID-19 pandemic, several car manufacturers have closed their factories, which has resulted in a massive decline in car sales. For instance, The BMW Group has seized the production at its South African site, along with European factories. The shutdowns of car production are anticipated to impact the growth of the Middle East & Africa atomic clock market in the coming years.

Exhibit: Middle East & Africa Atomic Clock Market Revenue and Forecast to 2028 (US\$ Million)

#### Middle East & Africa Atomic Clock Market Segmentation

The Middle East & Africa atomic clock market is segmented into type, application, and country.

Based on type, the Middle East & Africa atomic clock market is segmented into rubidium atomic clock and CSAC, cesium atomic clock, and hydrogen maser atomic clock. In 2022, the rubidium atomic clock and CSAC segment registered a largest share in the Middle East & Africa atomic clock market.

Based on application, the Middle East & Africa atomic clock market is segmented into space and military/aerospace, scientific and metrology research, telecom and broadcasting, and other applications. In 2022, space and military/aerospace segment registered a largest share in the Middle East & Africa atomic clock market.

Based on country, the Middle East & Africa atomic clock market is segmented into South Africa, Saudi Arabia, the UAE, the Rest of Middle East & Africa. In 2022, Saudi Arabia segment registered a largest share in the Middle East & Africa atomic clock market.

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AccuBeat Ltd; Excelitas Technologies Corp; IQD Frequency Products Ltd; Leonardo SpA; Microchip Technology Inc; Oscilloquartz SA; Stanford Research Systems Inc; and Tekron International Ltd are the leading companies operating in the Middle East & Africa atomic clock market.

## **Table of Contents:**

### TABLE OF CONTENTS

1. Introduction
  - 1.1 Study Scope
  - 1.2 The Insight Partners Research Report Guidance
  - 1.3 Market Segmentation
    - 1.3.1 MEA Atomic Clock Market - By Type
    - 1.3.2 MEA Atomic Clock Market - By Application
    - 1.3.3 MEA Atomic Clock Market- By Country
2. Key Takeaways
3. Research Methodology
  - 3.1 Coverage
  - 3.2 Secondary Research
  - 3.3 Primary Research
4. MEA Atomic Clock Market Landscape
  - 4.1 Market Overview
  - 4.2 MEA PEST Analysis
  - 4.3 Ecosystem Analysis
  - 4.4 Expert Opinion
5. MEA Atomic Clock -Market Dynamics
  - 5.1 Market Drivers
    - 5.1.1 Increasing Need for a High Precision Atomic Clock in Aerospace and Military
    - 5.1.2 High Demand from Metrology Station Owing to a Time-Sensitive Applications
  - 5.2 Market Restraints
    - 5.2.1 High Cost and Complexities Associated with Atomic Clocks
  - 5.3 Market Opportunities
    - 5.3.1 Next-Generation Chip-Scale Atomic Clocks (CSACs)
    - 5.3.2 Emerging Digital Infrastructure and 5G Base Stations
  - 5.4 Future Trends
    - 5.4.1 Atomic Clocks based on Optical Lattices of Strontium, Ytterbium and Gadolinium Atoms
  - 5.5 Impact Analysis of Drivers and Restraints
6. Atomic Clock Market - MEA Analysis
  - 6.1 MEA Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
7. MEA Atomic Clock Market Analysis - By Type
  - 7.1 Overview
  - 7.2 MEA Atomic Clock Market, By Type (2021 and 2028)
  - 7.3 Rubidium Atomic Clock and CSAC
    - 7.3.1 Overview
    - 7.3.2 Rubidium Atomic Clock and CSAC: MEA Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
  - 7.4 Cesium Atomic Clock
    - 7.4.1 Overview
    - 7.4.2 Cesium Atomic Clock: MEA Atomic Clock Market- Revenue and Forecast to 2028 (US\$ Million)

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- 7.5 Hydrogen Maser Atomic Clock
  - 7.5.1 Overview
  - 7.5.2 Hydrogen Maser Atomic Clock: MEA Atomic Clock Market- Revenue and Forecast to 2028 (US\$ Million)
- 8. MEA Atomic Clock Market Analysis - By Application
  - 8.1 Overview
  - 8.2 MEA Atomic Clock Market, By Application (2021 and 2028)
  - 8.3 Space and Military/Aerospace
    - 8.3.1 Overview
    - 8.3.2 Space and Military/Aerospace Research: MEA Atomic Clock Market- Revenue and Forecast to 2028 (US\$ Million)
  - 8.4 Scientific and Metrology Research
    - 8.4.1 Overview
    - 8.4.2 Scientific and Metrology Research: MEA Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
  - 8.5 Telecom and Broadcasting
    - 8.5.1 Overview
    - 8.5.2 Telecom and Broadcasting: MEA Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
  - 8.6 Other Applications
    - 8.6.1 Overview
    - 8.6.2 Other Applications: MEA Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
- 9. MEA Atomic Clock Market - Country Analysis
  - 9.1 Overview
    - 9.1.1 MEA: Atomic Clock Market, by Key Country
      - 9.1.1.1 South Africa: Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
        - 9.1.1.1.1 South Africa: Atomic Clock Market, by Type
        - 9.1.1.1.2 South Africa: Atomic Clock Market, by Application
      - 9.1.1.2 Saudi Arabia: Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
        - 9.1.1.2.1 Saudi Arabia: Atomic Clock Market, by Type
        - 9.1.1.2.2 Saudi Arabia: Atomic Clock Market, by Application
      - 9.1.1.3 UAE: Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
        - 9.1.1.3.1 UAE: Atomic Clock Market, by Type
        - 9.1.1.3.2 UAE: Atomic Clock Market, by Application
      - 9.1.1.4 Rest of MEA: Atomic Clock Market - Revenue and Forecast to 2028 (US\$ Million)
        - 9.1.1.4.1 Rest of MEA: Atomic Clock Market, by Type
        - 9.1.1.4.2 Rest of MEA: Atomic Clock Market, by Application
- 10. Industry Landscape
  - 10.1 Overview
  - 10.2 Market Initiative
  - 10.3 New Product Development
  - 10.4 Merger and Acquisition
- 11. Company Profiles
  - 11.1 AccuBeat Ltd
    - 11.1.1 Key Facts
    - 11.1.2 Business Description
    - 11.1.3 Products and Services
    - 11.1.4 Financial Overview
    - 11.1.5 SWOT Analysis
    - 11.1.6 Key Developments
  - 11.2 Excelitas Technologies Corp

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- 11.2.1 Key Facts
- 11.2.2 Business Description
- 11.2.3 Products and Services
- 11.2.4 Financial Overview
- 11.2.5 SWOT Analysis
- 11.2.6 Key Developments
- 11.3 IQD Frequency Products Ltd
- 11.3.1 Key Facts
- 11.3.2 Business Description
- 11.3.3 Products and Services
- 11.3.4 Financial Overview
- 11.3.5 SWOT Analysis
- 11.3.6 Key Developments
- 11.4 Leonardo SpA
- 11.4.1 Key Facts
- 11.4.2 Business Description
- 11.4.3 Products and Services
- 11.4.4 Financial Overview
- 11.4.5 SWOT Analysis
- 11.4.6 Key Developments
- 11.5 Microchip Technology Inc
- 11.5.1 Key Facts
- 11.5.2 Business Description
- 11.5.3 Products and Services
- 11.5.4 Financial Overview
- 11.5.5 SWOT Analysis
- 11.5.6 Key Developments
- 11.6 Oscilloquartz SA
- 11.6.1 Key Facts
- 11.6.2 Business Description
- 11.6.3 Products and Services
- 11.6.4 Financial Overview
- 11.6.5 SWOT Analysis
- 11.6.6 Key Developments
- 11.7 Stanford Research Systems Inc
- 11.7.1 Key Facts
- 11.7.2 Business Description
- 11.7.3 Products and Services
- 11.7.4 Financial Overview
- 11.7.5 SWOT Analysis
- 11.7.6 Key Developments
- 11.8 Tekron International Ltd
- 11.8.1 Key Facts
- 11.8.2 Business Description
- 11.8.3 Products and Services
- 11.8.4 Financial Overview
- 11.8.5 SWOT Analysis

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- 11.8.6 Key Developments
- 12. Appendix
- 12.1 About The Insight Partners
- 12.2 Word Index

**Middle East & Africa Atomic Clock Market Forecast to 2028 - COVID-19 Impact and Regional Analysis - by Type (Rubidium Atomic Clock and CSAC, Cesium Atomic Clock, and Hydrogen Maser Atomic Clock) and Application (Space and Military/Aerospace, Scientific and Metrology Research, Telecom and Broadcasting, and Other Applications)**

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