

# **OTA Testing Market by Offering (Hardware, and Services), Technology (5G, LTE, UMTS, GSM, and CDMA), Applications (Telecommunication & Consumer Devices, Automotive , Smart City, Industrial), and Geography - Global Forecast to 2023**

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## **Abstracts**

“Increasing precompliant testing for 5G and growing IoT application to fuel the growth of the OTA testing market”

The OTA testing market is estimated to be valued at USD 1.09 billion in 2018 and is expected to be worth USD 1.77 billion by 2023, growing at a CAGR of 10.13% between 2018 and 2023. The growth of the OTA testing market is propelled by the evolving 5G technology and the growing IoT market. However, OTA testing acting as a non-ideal solution for devices with large form factors acts as a restraint for the growth of the overall market. Major challenges for the OTA testing market is antenna array complexity, antenna calibration, and antenna irregularity.

“Increasing adoption of autonomous and connected cars has propelled the growth of automotive applications in the OTA testing market”

The increasing demand for connected cars and smart solutions, along with autonomous cars, is a major factor that has led to the growth of OTA testing across automotive and transportation. Automotive wireless systems use an OTA test methodology to perform interoperability and performance testing, first on the telematics unit including antenna cluster in the lab, and later on the prototype vehicle with both telematics unit and antenna cluster. Multiple input multiple output (MIMO) OTA performance testing is used to assess user experience by replicating real-world radio network conditions as seen by the vehicle antenna cluster. MIMO OTA testing uses channel emulators in conjunction

with either an anechoic chamber or a reverberation chamber to accurately emulate urban, suburban, rural, and indoor radio environments.

“APAC and North America are the major markets for the OTA testing market”

In 2017, APAC held the largest market share, and it offers the fastest-growing OTA testing market. Countries such as China, Japan, South Korea, and India are investing heavily in the implementation of IoT and M2M communication in infrastructure, which is expected to drive the OTA testing market in APAC. APAC is also the largest consumer of telecommunication and consumer devices such as smartphones, tablets, and laptops. There are still many projects to be initialized during the forecast period; these offer tremendous growth opportunities for smart solution vendors. North America is expected to follow APAC and accounts for the second-largest share of the OTA testing market. Government spending in IoT is an important factor driving the OTA testing market in North America. Europe comes after North America regarding the OTA testing market. The European Commission has created an Alliance for IoT innovation, which aims at contributing to the IoT market by bringing in new technological advancements that would help some of the major applications such as smart home, industrial, automotive, and transportation.

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 experts. The breakup of the profile of primary participants is given below:

By Company Type: Tier 1 = 35%, Tier 2 = 40%, and Tier 3 = 35%

By Designation: C-Level Executives = 50%, Directors = 35%, and Others = 15%

By Region: North America = 35%, Europe = 22%, APAC = 30%, and RoW = 13%

Key players profiled in this report are Intertek (UK), Bureau Veritas (France), Anritsu (Japan), Keysight (US), and Rohde & Schwarz (Germany).

Research Coverage:

The report estimates the market size and future growth potential of the OTA testing

*OTA Testing Market by Offering (Hardware, and Services), Technology (5G, LTE, UMTS, GSM, and CDMA), Applicatio...*

market across different segments such as offering, technology, application, and geography. Furthermore, the report also includes the industry trends, market dynamics, and competitive analysis of the key players in the market, along with their company profiles, competitive leadership mapping, and recent developments.

#### Key Benefits of Buying the Report:

The report would help the market leaders/new entrants in this market by providing them the closest approximations of the revenue numbers for the OTA testing segments and subsegments. This report would help stakeholders to better understand the competitor landscape and gain more insights to better position their businesses and make suitable go-to-market strategies. This report also helps the stakeholders to understand the pulse of the market and provides them information on key market drivers, restraints, challenges, and opportunities.

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## About

The report "OTA Testing Market by Offering (Hardware, and Services), Technology (5G, LTE, UMTS, GSM, and CDMA), Applications (Telecommunication & Consumer Devices, Automotive, Smart City, Industrial), and Geography - Global Forecast to 2023", The OTA testing market is expected to grow from USD 1.09 Billion in 2018 to USD 1.77 Billion by 2023, at a CAGR of 10.13% between 2018 and 2023. The evolving 5G technology, implementation across value chain, and the growing IoT market are the key driving factors for the OTA testing market.

### **Major players in the OTA testing market include:**

Intertek (UK),

Bureau Veritas (France),

Anritsu (Japan),

Keysight (US),

Rohde & Schwarz (Germany),

Eurofins (Luxembourg),

UL (US),

MVG (France),

SGS (Switzerland), and

Cetecom (Germany).

### **Telecommunication and consumer devices dominated the overall OTA testing market**

Among applications, telecommunication and consumer devices held the largest market share of the overall OTA testing market in 2017. The increasing adoption of LTE

technologies in consumer devices such as smartphones, tablets, and USB hotspots, among others, drives the increasing use of OTA testing services in telecommunications and consumer devices application.

Over-the-air (OTA) testing has become essential for engineers to evaluate and certify the reliability and performance characteristics of wireless devices, both for mobile and fixed locations. OTA testing lets engineers see what truly happens as the radio waves propagate over the air between the user equipment and the base station.

### **OTA testing market for 5G technology expected to grow at the highest CAGR during the forecast period**

The need for new equipment and services will boost the growth of the OTA testing market for 5G technologies. OTA testing services for 5G are complex and done over the air as there are no connectors or probe points involved, which might enable conducted tests. The need for updating the OTA equipment and providing complex services for 5G will play a critical role in the development and validation of 5G, from R&D through conformance test, manufacturing, installation, and maintenance.

### **APAC expected to hold the largest market share and the highest growth rate**

China, Japan, South Korea, and India are investing heavily in the implementation of IoT and M2M communication in infrastructure, which is expected to drive the OTA testing market in APAC. APAC is also the largest consumer of telecommunication and consumer devices such as smartphones, tablets, and laptops. There are still many projects to be initialized during the forecast period; these offer tremendous growth opportunities for smart solution vendors. South Korea and Singapore have high connectivity and smart solutions.

There are still many projects to be initialized during the forecast period. These projects offer tremendous growth opportunities for the smart solution vendors. In other regions, such as Europe, APAC, MEA, and South America, there is a wide scope for the development of smart cities as smart city solutions are only deployed in few cities.

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