Navigation Satellite System Market Research Report- Forecast to 2023

Description:

Global Navigation Satellite System (GNSS) Market, By Application (Agriculture, Aviation, Location-Based Services, Maritime, Time & Synchronization), By Technology (Global Constellations, Satellite-Based Augmentation Systems (SBAS)— Forecast till 2023

Market Synopsis

Global navigation satellite system (GNSS) is used to identify geographical location of a user anywhere in the world. GNSS helps electronic receivers to find the actual location of a person by using geo-spatial frequencies. GNSS uses triangulation method to locate the user with the help of calculations involving information from a number of satellites. Common GNSS systems are United States’ Global Positioning System (GPS), Russian Federations Global Orbiting Navigation Satellite System (GLONASS), and Europe’s Galileo. Each satellite system transmits coded signals at accurate intervals. The receiver receives the signal and converts it into information related to velocity, positions, and time estimates. With this information, any receiver near the earth’s surface can calculate the exact distance between transmitter and receiver and actual position of the transmitting satellite.

In case of satellite systems failure, the GNSS receivers immediately pick-up signals from other adjacent systems. Four criteria that are used to measure performance of GNSSs are accuracy, integrity, continuity, and availability. Accuracy depends on the difference between receiver’s measured value and actual position. Integrity is a system’s capacity to provide notifications prior to detection of any system error. Continuity is a system’s ability to function without interruption. Availability is measure of time a signal takes to fulfill all the accuracy, integrity, and continuity criteria.

Increasing emphasis on positioning, navigation and timing (PNT) tools in industrial, military, commercial, and government applications, and the growing demand for indoor positioning and navigation devices and solutions for customer privacy are driving the global navigation satellite system market. However, ease of accessibility leading to cyber threats and issues regarding storage of unstructured data restrict the growth of GNSS market.

Trimble Inc. is one of the key players in GNSS market. Trimble provide products as well as solutions regarding GNSS such as integrated GNSS systems, modular GNSS systems, software-based receivers, handheld GNSS systems, data radios, and antennas.

Segmentation

Global Navigation Satellite Systems market can be segmented as follows:

By application, the market is segmented into agriculture, aviation, location-based services, maritime, road, rail, surveying, and time & synchronization. Location-based services are further segmented into smartphones, tablets, digital cameras, portable computer, sport & wearable’s, personal tracking devices, search & rescue (PLB). Maritime is further segmented into search & rescue (pirb), search & rescue (epirb), traffic management, homeland security, inland water transport (iww) navigation, merchant navigation, recreational navigation, ports, traffic management, marine engineering and fishing vessels. Surveying is further segmented into cadastral, construction - machine control, construction - person based mapping, mining and marine surveying. Timing & synchronization is further segmented into telecommunication, energy, and finance.
By technology, the market is segmented into global constellations and satellite-based augmentation systems (SBAS). Global constellations is segmented into GPS, GLONASS, Galileo and BeiDou. Satellite-based augmentation systems is segmented into EGNOS (Europe), WAAS (North America), GAGAN (India) and MSAS (Japan).

By region, the market is segmented into North America, Europe, Asia-Pacific, and the rest of the world.

Regional analysis

The global market for navigation satellite system (GNSS) is estimated to grow at a significant rate during the forecast period. The geographical analysis of GNSS market is studied for North America, Europe, Asia-Pacific, and the rest of the world.

North America is expected to dominate the market for navigation for satellite systems in the forecast period. The US, Canada, and Mexico dominates the satellite navigation system market in North-American region. In the United States, this market is been growing very rapidly as they have their own GNSS (global navigation satellite system) name NAVSTAR GPS.

The satellite navigation system market in Asia-Pacific is also expected to grow at faster rate during the forecast period owing to the presence of large telecom industries, consumer electronics such as mobile phones which increase the application scope for navigation systems in the Asia-Pacific region. Recently, India’s PSLV launched 31 satellites in single flight in which 2 satellites are from other countries.

Key players

The Key players in the GNSS market are Qualcomm Technologies International Ltd. (US), AgJunction, Inc. (US), Garmin Ltd. (Switzerland), Furuno Electric Co Ltd. (Japan), Hexagon (Sweden), Raytheon Company (US), Topcon Corporation (Japan), Trimble Navigation Ltd. (US), Rockwell Collins (US), and TomTom NV (Netherlands) among others.

Intended Audience

- Technology standards organizations,
- Forums, alliances, and associations
- Analysts and strategic business planners
- Research organizations
- Technology investors
- Governments, financial institutions, and investment communities
- Original equipment manufacturers (OEMs)
- Mining
- Oil & Gas
- Construction and infrastructure

Contents:

TABLE OF CONTENTS
1. Executive Summary
2. Scope of the Report
   2.1. Market Definition
   2.2. Scope of the Study
   2.2.1. Research Objectives
   2.2.2. Assumptions & Limitations
   2.3. 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. Rivalry
4.1.5. Bargaining Power of Suppliers
4.2. Value Chain/Supply Chain of Global Navigation Satellite System (GNSS) Market

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

7.1. Introduction
7.2. Global Constellations
7.2.1. GPS
7.2.1.1. Market Estimates & Forecast, 2018–2023
7.2.1.2. Market Estimates & Forecast, by Region, 2018–2023
7.2.2. GLONASS
7.2.2.1. Market Estimates & Forecast, 2018–2023
7.2.2.2. Market Estimates & Forecast, by Region, 2018–2023
7.2.3. Galileo
7.2.3.1. Market Estimates & Forecast, 2018–2023
7.2.3.2. Market Estimates & Forecast, by Region, 2018–2023
7.2.4. BeiDou
7.2.4.1. Market Estimates & Forecast, 2018–2023
7.2.4.2. Market Estimates & Forecast, by Region, 2018–2023
7.3. Satellite-Based Augmentation Systems (SBAS)
7.3.1. EGNOS (Europe)
7.3.1.1. Market Estimates & Forecast, 2018–2023
7.3.1.2. Market Estimates & Forecast, by Region, 2018–2023
7.3.2. WAAS (North America)
7.3.2.1. Market Estimates & Forecast, 2018–2023
7.3.2.2. Market Estimates & Forecast, by Region, 2018–2023
7.3.3. GAGAN (India)
7.3.3.1. Market Estimates & Forecast, 2018–2023
7.3.3.2. Market Estimates & Forecast, by Region, 2018–2023
7.3.4. MSAS (Japan)
7.3.4.1. Market Estimates & Forecast, 2018–2023
7.3.4.2. Market Estimates & Forecast, by Region, 2018–2023

8.1. Introduction
8.2. Agriculture
8.2.1. Market Estimates & Forecast, 2018–2023
8.2.2. Market Estimates & Forecast, by Region, 2018–2023
8.3. Aviation
8.3.1. Market Estimates & Forecast, 2018–2023
8.3.2. Market Estimates & Forecast, by Region, 2018–2023
8.4. Location-based services
8.4.1. Market Estimates & Forecast, 2018–2023
8.4.2. Market Estimates & Forecast, by Region, 2018–2023
8.5. Maritime
8.5.1. Market Estimates & Forecast, 2018–2023
8.5.2. Market Estimates & Forecast, by Region, 2018–2023
8.6. Road
8.7. Rail
8.7.1. Market Estimates & Forecast, 2018–2023
8.8. Surveying
8.9. Time & Synchronization
9.1. Introduction
9.2. North America
9.2.4. US
9.2.4.1. Market Estimates & Forecast, by Technology, 2018–2023
9.2.5. Mexico
9.2.5.1. Market Estimates & Forecast, by Technology, 2018–2023
9.2.6. Canada
9.3. Europe
9.3.4. Germany
9.3.4.1. Market Estimates & Forecast, by Technology, 2018–2023
9.3.5. France
9.3.5.1. Market Estimates & Forecast, by Technology, 2018–2023
9.3.6. UK
9.4. Asia-Pacific
9.4.4. China
9.4.5. India
9.4.5.1. Market Estimates & Forecast, by Technology, 2018–2023
9.4.6. Japan
9.4.7. Rest of Asia-Pacific
9.5. Rest of the World
9.5.4. Middle East & Africa
9.5.4.1. Market Estimates & Forecast, by Technology, 2018–2023
9.5.4.2. Market Estimates & Forecast, by Applications, 2018–2023
9.5.5. Latin Countries
9.5.5.1. Market Estimates & Forecast, by Technology, 2018–2023
9.5.5.2. Market Estimates & Forecast, by Applications, 2018–2023
10. Company Profiles
10.1. Qualcomm Technologies Ltd
10.1.1. Company Overview
10.1.2. Product/Business Segment Overview
10.1.3. Financial Updates
10.1.4. Key Developments
10.2. AgJunction, Inc.
10.2.1. Company Overview
10.2.2. Product/Business Segment Overview
10.2.3. Financial Updates
10.2.4. Key Developments
10.3. Garmin Ltd.
10.3.1. Company Overview
10.3.2. Product/Business Segment Overview
10.3.3. Financial Updates
10.3.4. Key Developments
10.4. Furuno Electric Co Ltd.
10.4.1. Company Overview
10.4.2. Product/Business Segment Overview
10.4.3. Financial Updates
10.4.4. Key Developments
10.5. Hexagon
10.5.1. Company Overview
10.5.2. Product/Business Segment Overview
10.5.3. Financial Updates
10.5.4. Key Developments
10.6. Raytheon Company
10.6.1. Company Overview
10.6.2. Product/Business Segment Overview
10.6.3. Financial Updates
10.6.4. Key Developments
10.7. Topcon Corporation
10.7.1. Company Overview
10.7.2. Product/Business Segment Overview
10.7.3. Financial Updates
10.7.4. Key Developments
10.8. Trimble Navigation Ltd.
10.8.1. Company Overview
10.8.2. Product/Business Segment Overview
10.8.3. Financial Updates
10.8.4. Key Developments
10.9. Rockwell Collins
10.9.1. Company Overview
10.9.2. Product/Business Segment Overview
10.9.3. Financial Updates
10.9.4. Key Developments
10.10. TomTom NV
10.10.1. Company Overview
10.10.2. Product/Business Segment Overview
10.10.3. Financial Updates
10.10.4. Key Developments

11. Conclusion

LIST OF TABLES
Table 1: Global Navigation Satellite System Market, By Country, 2018-2023
Table 2: North America: Navigation Satellite System Market, By Country, 2018–2023
Table 3: Europe: Satellite Navigation System Market, By Country, 2018–2023
Table 4: Asia-Pacific: Satellite Navigation System Market, By Country, 2018–2023
Table 5: Latin America: Navigation Satellite System Market, By Country, 2018–2023
Table 6: North America: Navigation Satellite System Market, By Country
Table 7: North America: Navigation Satellite System Market, By Technology
Table 8: North America: Navigation Satellite System Market, By Applications
Table 9: Europe: Navigation Satellite System Market, By Country
Table 10: Europe: Navigation Satellite System Market, By Technology
Table 11: Europe: Navigation Satellite System Market, By Applications
Table 12: Asia-Pacific: Navigation Satellite System Market, By Country
Table 13: Asia-Pacific Navigation Satellite System Market, By Technology
Table 14: Asia-Pacific Navigation Satellite System Market, By Applications
Table 15: Middle East & Africa: Navigation Satellite System Market, By Country
Table 16: Middle East & Africa: Navigation Satellite System Market, By Technology
Table 17: Middle East & Africa: Navigation Satellite System Market, By Applications
Table 18: Latin America: Navigation Satellite System Market, By Country
Table 19: Latin America: Navigation Satellite System Market, By Technology
Table 20: Latin America: Navigation Satellite System Market, By Applications

LIST OF FIGURES
Figure 1: Global Navigation Satellite System Market segmentation
Figure 2: Forecast Methodology
Figure 3: Porter’s Five Forces Analysis of Global Navigation Satellite System Market
Figure 4: Value Chain of Global Navigation Satellite System Market
Figure 5: Share of Navigation Satellite System Market in 2018, by country (in %)
Figure 6: Global Navigation Satellite System Market, 2018–2023
Figure 7: Share of Global Navigation Satellite System Market by Industry, 2018–2023
Figure 8: Global Navigation Satellite System Market Size, by Technology, 2018
Figure 9: Share of Global Navigation Satellite System Market, by Technology, 2018–2023
Figure 10: Global Navigation Satellite System Market Size, by Applications, 2018
Figure 11: Share of Global Navigation Satellite System Market, by Applications, 2018–2023