

Wireless Sensors: Technologies and Global Markets

Market Research Report | 2023-08-16 | 208 pages | BCC Research

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Report description:

Description

Report Scope:

The scope of the report includes an overview of the global wireless sensors market as well as the analysis of global market trends. The data included in the report considers 2022 as the base year, and estimates for 2023 through 2028, with projections of CAGR in the forecast period. Revenue forecasts for this period are segmented based on measurable parameters, wireless standard/technology, end-use application and geography.

The report also offers an in-depth analysis of the competitive landscape within the wireless sensors market, focusing on key dynamics that drive success. It examines critical factors such as research and development capabilities, market presence, brand strength, and the influence of ecosystems and partnerships. The report includes profiles of wireless sensor manufacturers, providing valuable insights into their strategies and offerings. Additionally, the report assesses the impact of the COVID-19 pandemic on the market, considering the challenges and opportunities that have emerged as a result.

Report Includes:

- 57 data tables and 14 additional tables
- An updated overview of global markets for the wireless sensor applications
- Analyses of market trends, with data from 2022, estimates for 2023, and projections of compound annual growth rates (CAGRs) through 2028
- Estimation of the market size for wireless sensor technologies, both in value and volumetric terms, and corresponding market share analysis by type of wireless sensor standard/technology, measurable parameter, application, and geographic region
- Description of the technology and innovations behind wireless sensor development and production; and analysis of

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opportunities, deterrents, and trends affecting the growth of this market

- Details of numerous wireless sensors technologies such as RFID, ZigBee, RF4CE and EnOcean and comparison between Bluetooth and Bluetooth smart sensors
- Coverage of events like mergers and acquisitions, joint ventures, collaborations or partnerships, and other key strategies adopted by leading players in the wireless sensors market
- Market share analysis of various manufacturers/suppliers of various wireless sensors, and their product overviews and competitive landscape
- Company profiles of major industry players of the industry, including ABB Ltd., Emerson Electric Co., Jacobs Engineering Inc., Robert Bosch GmbH and Texas Instruments Inc.

Executive Summary

Summary:

Wireless sensors are devices that can measure and collect data from their environment and transmit it wirelessly to a monitoring or control system. They are designed to eliminate the need for physical wiring, allowing for flexible and remote monitoring in various applications.

This report covers the wireless sensors market in various end-use applications such as home automation and other indoor applications, energy infrastructure, healthcare, industrial automation, logistics and transport, ecology and agriculture, and defense and surveillance. It also covers various wireless technologies/standards such as Zigbee and radio frequency for consumer electronics (RF4CE), Bluetooth and Bluetooth Smart, Wi-Fi and IPv6 over low-power wireless personal area networks (6LoWPAN), radio-frequency identification (RFID), and other 802.15.4-based technologies and measurable parameters such as biological characteristics, motion and position, temperature, flow, level, surveillance and image, chemical, pressure and humidity.

Home automation and other indoor applications are expected to be significant contributors to the wireless sensor market. However, competition among various wireless technologies like Zigbee, EnOcean, Z-wave, Wi-Fi6LoWPAN (Thread), and Bluetooth Smart will temper their individual influence. Companies in these sectors are investing heavily to ensure the privacy of their technology, leading to a somewhat disorganized rollout of wireless sensor-enabled products. Stakeholders in home automation have been quick to launch their offerings, resulting in their dominance in the market. However, as other sectors, particularly in the industrial domain, increasingly adopt wireless sensors, the influence of home automation will diminish. The automotive engineering and design domains driven by intelligent transportation are more focused on electronic technologies than mechanical ones, further propelling the growth of the wireless sensors market.

Wireless sensors play a crucial role in collecting valuable information related to crop growth, optimal watering patterns, and fertilizer requirements. With the agriculture industry facing the challenge of meeting the growing food demand of a growing global population, the increased utilization of wireless sensors in agriculture is poised to drive the growth of the wireless sensors market. Furthermore, the rising adoption of IoT-based wireless sensors across various end-user applications is expected to be a significant driver for the expansion of the wireless sensors market.

The prominent players in the market include NXP Semiconductor Inc., Emerson Electric Co., Texas Instruments Inc., ABB Ltd., Siemens AG, Schneider Electric SE, Rockwell Automation Inc., Honeywell International Inc., and STMicroelectronics N.V., among others.

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Wireless Biological Characteristic Sensors
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ENDRESS+HAUSER
ENOCEAN
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INFINEON TECHNOLOGIES AG
JACOBS ENGINEERING INC.
KCF TECHNOLOGIES
LORD MICROSTRAIN SENSING SYSTEMS
MICROSEMI CORP. (MICROCHIP TECHNOLOGY)
MOOG CROSSBOW
NXP SEMICONDUCTOR INC.
ROBERT BOSCH GMBH
ROCKWELL AUTOMATION
SCHNEIDER ELECTRIC
SIEMENS AG
STMICROELECTRONICS N.V.
TE CONNECTIVITY
TEXAS INSTRUMENTS INC.
TYCO INTERNATIONAL PLC (JOHNSON CONTROLS INTERNATIONAL PLC)
UNITED TECHNOLOGIES CORP.
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