

Data Acquisition (DAQ) System Market with Covid-19 Impact Analysis by Offering (Hardware and Software), Speed (High Speed (>100 KS/S), Low Speed (

Abstracts

The global DAQ system market size is estimated to grow from USD 1.7 billion in 2021 to USD 2.3 billion by 2026, at a CAGR of 5.5%. The market has a promising growth potential due to growing adoption of DAQ systems and solutions especially in automotive & transportation, aerospace & defense and power & energy verticals along with others in the near future.

Industry 4.0 helps in the implementation of new digital technologies, such as IoT, cloud, and mobile computing, in the global manufacturing sector. In the aerospace and automotive sectors, Industry 4.0 has been adopted across the supply chain, from OEMs to small-time suppliers of components and parts. Industry 4.0 is helping OEMs develop and deliver products and equipment through digital transformation, replacing manual methodologies. The key driving factor for the application of Industry 4.0 is that it makes production technologies smarter by using sensors and other advanced manufacturing technologies. For example, in the aerospace sector, the adoption of Industry 4.0 technology enables faster data exchange and increases automation in the manufacturing of major aerospace components and electronics. It also increases connectivity among stakeholders, thereby increasing operational efficiency. In the automotive sector, the adoption of Industry 4.0 allows manufacturers to optimize their operations quickly and efficiently with continuous real-time tracking of manufacturing processes and resources.

The market declined in 2020, mainly due to the impact of COVID-19. The supply chains were disrupted in 2020 due to the lockdown imposed by various governments and labor shortages in these industries due to travel restrictions, which affected the DAQ system market. Though the market has been impacted in 2020, it is expected to recover by 2021.

“R & D: The largest segment of the DAQ system market, by application”

R&D is expected to contribute to the largest market size in the DAQ system market. R&D is carried out by all resident companies, research institutes, universities, and government laboratories all over the world. In R&D, DAQ systems acquire the component parameters and characteristics of prototypes and preproduction models.

Heavy investments in R&D and the constant need for innovation and development of products are expected to grow the demand for DAQ systems in R&D applications. Many countries in APAC, such as India, China, Japan, and the Republic of Korea, are heavily investing in R&D, which is likely to increase the demand for DAQ systems.

“Automotive & transportation: The fastest-growing segment of the DAQ system market, by vertical”

The DAQ system market for the automotive & transportation vertical is expected to grow at the fastest rate during the forecast period. The growing trend of technology-driven solutions and the rising need for real-time data monitoring and acquisition for various applications in the automobile & transportation industry fuels the growth of this industry. The need to comply with government regulations with various design standards and functional specifications and the interest of OEMs in providing competent products, coupled with the growing demand from end users for advanced vehicles as well as testing of components and parts to overcome silos and reduce production time are the major factors driving the DAQ system market for the automotive & transportation vertical. The increasing trend of electric and hybrid electric vehicles is encouraging manufacturers to indulge in the development of novel DAQ systems for the testing of such vehicles.

“North America has the largest market share in the DAQ system market”

Increasing the adoption of automated technologies in process and discrete manufacturing is one of the major factors driving the growth of the DAQ systems market in North America. After China, the US manufacturing sector is the second-largest in the world. The US is already at the forefront of major developments surrounding the emerging technologies of the Fourth Industrial Revolution (Industry 4.0). Adoption of smart technologies in the manufacturing sector to improve process efficiency, reduce downtime, and increase product quality is likely to create growth opportunities for the DAQ system market in the US.

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies. The break-up of the primaries is as follows:

By Company Type: Tier 1 – 38%, Tier 2 – 35%, and Tier 3 – 27%

By Designation: C-level Executives – 32%, Directors – 44%, and Others – 24%

By Region: Europe – 35%, North America – 32%, APAC – 27%, and RoW – 6%

The report profiles key players in the global DAQ system market with their respective market share analysis. Prominent players profiled in this report are National Instruments Corp (National Instruments, US), Keysight Technologies (US), Siemens Digital Industries Software (US), Spectris PLC (UK), Fortive (US), ADLINK Technology (Taiwan), AMETEK, Inc (US), Dewesoft d.o.o (Slovenia), Teledyne Technologies Incorporated (US), Yokogawa Electric Corporation (Japan). Other players include AstroNova Inc (US), Campbell Scientific Inc (US), Curtiss-Wright Corporation (US), Dataforth Corporation (US), Dewetron GmbH (Austria), Emerson Electric Co US), Gantner Instruments (Austria), General Electric (US), Graphtec Corporation (Japan), imc Test & Measurement GmbH (Germany), Hioki E.E. Corporation (Japan), Honeywell International Inc (US), MTS System Corp (US), Kistler Group (Switzerland), Rockwell Automation Corporation (US), Schneider Electric (France), and SEFRAM Instruments (France).

Research Coverage:

The report segments the DAQ system market and forecasts its size, by value, based on region (North America, Europe, APAC and ROW), by offering (Hardware, Software), by speed (high-speed(>100KS/S), low-speed(

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