

Modular Test Equipment Market - Growth, Trends and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 120 pages | Mordor Intelligence

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Report description:

The Modular Test Equipment market is expected to grow at a CAGR of 7.6% over a forecast period. The rising number of connected devices and increasing companies' attention towards quality improvements and end-to-end test solutions are expected to drive market growth over the studied period.

Key Highlights

In modular instrumentation systems, GHz PC processors analyze the data and make measurements using the software. The result is measurements at 10 to 100 times the throughput of a test system built solely on traditional instruments, which use built-in vendor-defined firmware and application-specific processors.

The market for modular testing is witnessing various strategic investments made by national and international players to remain competitive. For instance, in October 2022, Omega Laboratories, a provider of laboratory testing solutions, acquired Acumium to enhance its ability to provide risk mitigation while providing more timely results for faster clinical, court, and employment decisions.

Further, in September 2022, inTEST Corporation, a supplier of innovative test and process solutions for manufacturing and testing, announced to feature companies of its solutions for electric vehicles, OEMs, EV battery manufacturers, and other battery technologies at the Battery Show North America.

The solution will ensure the quality of battery arrays with the Acculogic STINGRAY flying probe tester. A cost-effective automated test platform with accelerated performance offers an accurate, fast, and reliable test of battery array interconnections.

Additionally, in September 2022, Keysight Technologies announced its partnership with Credo Technology Group for its Layer 1-3 800GE network device and Ethernet protocol test solutions for network infrastructure. Keysight's colKeysight with Credo will provide the global networking industry with a comprehensive set of test and measurement capabilities that address the rapidly growing and diverse ecosystem of 800GE-capable components, network silicon devices, and networking equipment systems.

Modular Test Equipment Market Trends

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Automotive and Transportation to Hold a Significant Share

The automotive industry has one of the most challenging electronic testing requirements, which demands reliable testing to verify and test controller designs. Modular test equipment provides high reliability and high operational predictability in testing. As the industry is increasing, vendors are launching innovations regularly to remain competitive. For instance, in February 2021, Keysight Technologies introduced a parallel board test system, the i7090, to test automotive products. The i7090 supports up to twenty cores with PXI-based in-circuit test capability.

Further, in June 2022, the company announced its participation at the Automotive Testing Expo, an international expo for every aspect of automotive testing, development, and validation technologies. The company will demonstrate solutions that enable innovators to push the boundaries of engineering by quickly solving design, test, and validation challenges to create the best autonomous and electric vehicle experiences.

Moreover, in February 2022, Pickering Interfaces, a supplier of modular signal switching and simulation solutions for use in electronic test and verification, announced the launch of single-slot 40/42-203 and 40/42-204 modules delivering high performance, providing switching to 200V and 0.8A with typical differential bandwidths of 1.6GHz and 700MHz respectively. The modules feature PXI or PXIe control interface enabling flexibility in chassis selection.

The rising adoption of electric vehicles is further expected to drive market growth. As per International Energy Association, plug-in electric light vehicle (PEV) sales will likely reach around 6.7 million units by 2021.

Asia-Pacific is Expected to Show a Significant Growth

The Asia Pacific is one of the significant investors and adopters in the studied market owing to growing investment in industrial sectors and industrial automation technologies. The growing companies' attention to quality improvements and end-to-end test solutions further strengthens the market growth.

The region is witnessing various developments by the vendors. For instance, in August 2022, Palomar Technologies expanded its innovation center in Singapore to meet the demand in Southeast Asia for process development and assembly and testing for advanced semiconductor new product introductions.

Furthermore, in April 2022, Keysight Technologies announced its collaboration with Singapore's Quantum Engineering Program (QEP) to accelerate research, development, and education in quantum technologies. Such developments will further fuel the demand for modular test equipment.

In June 2022, Advantest Corporation, a semiconductor test equipment supplier, announced the acquisition of CREA. The acquisition of CREA will expand the company's test and measurement solutions within the evolving semiconductor value chain to meet a broader range of customer needs.

Modular Test Equipment Market Competitor Analysis

The Modular Test Equipment Market is moderately consolidated, with few local and international players active in the market. International participants operate in the market through partnerships with local players. With the market expected to broaden and yield more opportunities, more players are expected to enter the market soon. The key players in the market studied include Teradyne Inc, Advantest Corporation, and National Instruments, among others. These major players have adopted various growth strategies, such as new product launches, mergers and acquisitions, expansions, partnerships, joint ventures, and others, to strengthen their position in this market.

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May 2022 - Keysight Technologies has announced the Double-Pulse Tester (DPT) launch with the PD1550A Advanced Dynamic Power Device Analyser. The new technology will enhance capabilities that will enable customers to test entire power modules more efficiently and effectively.

February 2021 - U.S. Air Force, test and measurement experts have offered a contract of USD 78.2 million to Teradyne Inc to provide kits for the Versatile Depot Automatic Test Station (VDATS) family of electronics testers to troubleshoot military aircraft.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

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