

Electrical and Electronic Test Equipment - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 136 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

The Electrical and Electronic Test Equipment Market size is estimated at USD 15.66 billion in 2025, and is expected to reach USD 19.33 billion by 2030, at a CAGR of 4.29% during the forecast period (2025-2030).

Key Highlights

- Electrical and electronic test equipment are tools used to measure, test, diagnose, and troubleshoot various aspects of electrical and electronic systems. This equipment helps ensure the proper functioning, safety, and performance of electronic devices, circuits, and components. Test equipment helps simulate the real-time environment as closely as possible to verify the device under test (DUT).
- Testing equipment is as important as the device itself. All electronic equipment tends to wear out over time due to heating, moisture, shock, or vibration. This can lead to performance degradation. Therefore, every electronic testing facility must have the required equipment, whether a simple multimeter or a complex oscilloscope.
- The increasing need for accuracy and speed in designing, manufacturing, or repairing electronic products is one of the major factors driving the demand for electric and electronic test equipment across industries. The increase in the adoption of new and connected electronic devices and emerging advanced technologies, such as electric vehicles, autonomous driving, and 5G, is also fueling the demand in the market.
- For instance, the risk associated with battery-electric vehicles is catching fire due to thermal runaway, where damage to the battery leads to uncontrollable overheating. Moreover, many electric vehicles (EVs) that caught fire used more temperature-sensitive battery chemistry called NMC. To use a more temperature-sensitive battery, no design measures were taken to ensure that it's thermally cooled properly at the battery pack level. By employing rigorous electrical and electronic testing practices, manufacturers and engineers can optimize the performance and safety of electric vehicles.
- Moreover, the increasing deployment of autonomous driving will demand the use of test equipment to ensure that autonomous

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

driving systems are reliable, safe, and capable of making split-second decisions in complex environments. These testing processes are essential to bring autonomous vehicles to the roads with high confidence in their performance and safety.

- Like other markets, the electrical and electronics test equipment market also has some challenges to overcome, and fierce price competition has been one of the key issues for original equipment manufacturers (OEMs). Most developing nations, such as India, are very price-sensitive, which makes them keep the prices of testing services significantly low. This further leads to the presence of many old, refurbished, non-calibrated instruments operating in the market that provide inaccurate measurements.
- Resistance toward increased cost and new products is another issue, as developing a new product requires huge capital. When it comes to procurement, it has been observed that the customers are not willing to pay well for such equipment, and sometimes it is considered the last priority item.
- The COVID-19 pandemic influenced the overall semiconductor manufacturing market on both the demand and supply sides. The global lockdowns and closure of semiconductor plants led to a supply shortage. The effects were also reflected in the market. However, many of these effects were short-term. Precautions by governments worldwide to support the automotive and semiconductor sectors helped revive the market.

Electrical and Electronic Test Equipment Market Trends

Semiconductors and Computing are Expected to be the Largest End-user Industry

- The adoption of automated test equipment (ATE) by semiconductor manufacturing firms to improve performance operational speed and reduce costs of semiconductor devices is anticipated to have a favorable impact on market growth.
- Semiconductor automated test equipment (ATE) is capable of testing a diverse array of electronic devices and systems, ranging from essential components such as resistors, capacitors, and inductors to complex integrated circuits (ICs), printed circuit boards (PCBs), and fully assembled electronic systems. ATE is extensively employed in the electronic manufacturing sector to examine electronic components and systems post-fabrication. Given the rising semiconductor industry, the demand for ATE is anticipated to escalate considerably.
- The semiconductor industry is experiencing a rapid expansion, with semiconductors serving as the fundamental components of contemporary technology. According to SIA, the global sales of semiconductors amounted to USD 124.5 billion in Q2 2023, marking a 4.7% rise from Q1 2023. Additionally, it foresees a 56% surge in the worldwide demand for semiconductor manufacturing capacity by 2030. Such futuristic developments are expected to create a significant need for electronic testing equipment.
- The market is witnessing an increase in demand for rapid and significant improvements in chip power performance, efficiency, cost, area, and time to market due to the emergence of technologies such as the IoT, Big Data, and artificial intelligence (AI). This shift in customer demands and preferences is expected to be one of the critical drivers for the growth of the semiconductor testing equipment market.
- SIA officially supported the WSTS Spring 2023 worldwide semiconductor sales forecast in June 2023. The forecast estimated annual global sales to amount to USD 515.1 billion in 2023, a decrease from the 2022 sales total of USD 574.1 billion. In 2024, global sales are expected to reach USD 576.0 billion, the highest-ever total in the industry. The escalating demand for chips, coupled with favorable government initiatives and rising demand for semiconductor chips, has led to an increase in semiconductor equipment spending, indicating a growing interest in establishing new foundries worldwide. Such increasing chip production is expected to drive the demand for electronic testing equipment.

Asia-Pacific is Expected to Dominate the Market

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- The Asia-Pacific region significantly dominates the semiconductor and electronics industry, primarily driven by the extensive manufacturing bases in China, Japan, South Korea, and India, which have also been rapidly maturing in the final assembly of the electronics industry.
- Large contractors, such as Foxconn Technology Group and Megatron Asia Pacific Ltd, are in the process of setting up plants in India. According to IBEF, India is committed to reaching USD 300 billion worth of electronics manufacturing and exports of USD 120 billion by 2025-26. In addition, the Union Budget 2023-24 allocated INR 16,549 crore (USD 2 billion) for the Ministry of Electronics and Information Technology, which is about 40% more elevated annually.
- The region's increasing testing and inspection activities are expected to create a considerable demand for electrical test equipment. Previously, most regional firms conducted their testing and certification operations in-house. However, due to China's Compulsory Certification regulations, greater emphasis is now placed on the need for strict regulatory standards. This has led to increased outsourcing of testing services, thereby increasing the demand for test equipment among testing services companies.
- Apart from the consumer electronics industry, low-cost carriers dominate the region. Thus, the majority of the inspection and service activities are outsourced. Due to this, Singapore has emerged as a regional hub for maintenance and inspection services. Allied players operating from Singapore have maintained dominance in the region for over two decades. However, countries like Indonesia, Vietnam, and Thailand are challenging the country's dominance.
- Additionally, the region has been a base for multiple key players, including Yokogawa (Japan), Advantest Corp (Japan), Anritsu Corporation (Japan), Rigol Technologies (China), and ScienceTech Technologies (India). These companies, along with various other companies in the region, are continuously involved in product innovations, providing solutions across various industry applications.
- In August 2022, Advantest Corp. collaborated with the Rohde & Schwarz RTP high-performance oscilloscope for mass exhibition evaluation of high-speed SoC testers. In line with this partnership, the company aims to enhance the quality of its products to meet the latest requirements. Such initiatives by the regional companies are expected to promote market growth.
- Furthermore, multiple infrastructure projects, such as executing high voltage lines and power generation plants, are anticipated to drive the region's demand for electrical testing equipment. For instance, in August 2022, China's State Grid plans to fund more than CNY 150 billion (USD 22 billion) in UHV power transmission lines in the second half of 2022. The construction of 8 new UHV projects is expected to connect China's far western regions, where solar, wind, and hydropower plants are primarily located, to its major cities, further driving market growth.

Electrical and Electronic Test Equipment Market Overview

The electrical and electronic test equipment market is characterized by a high degree of fragmentation, featuring key players like Fortive Corporation, Keysight Technologies Inc., Rohde & Schwarz GmbH & Co. KG, National Instruments Corporation, and Anritsu Corporation. Market participants are strategically leveraging partnerships and acquisitions to bolster their product portfolios and establish a sustainable competitive edge.

August 2023: Yokogawa Test & Measurement Corporation, a subsidiary of Yokogawa Electric Corporation, introduced the DLM5000HD series of precision oscilloscopes. Positioned as an advanced iteration of the DLM5000 series, the DLM5000HD series broadens Yokogawa's oscilloscope offerings, encompassing models with 500 MHz and 350 MHz frequency bandwidths. These models offer enhanced resolution for precise waveform analysis and incorporate user-friendly features that streamline setup and operation.

June 2023: Advantest Corporation unveiled its collaboration with Arizona State University (ASU) to establish a novel test engineering program in partnership with NXP. The program's curriculum, initially developed by ASU's Ira and Fulton Schools of Engineering faculty, was enriched through laboratory experiments devised by Advantest. These experiments are administered jointly by Advantest and NXP, marking a significant educational milestone.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

Table of Contents:

1 INTRODUCTION

1.1 Study Assumptions and Market Definition

1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

4.1 Market Overview

4.2 Industry Attractiveness - Porter's Five Forces Analysis

4.2.1 Bargaining Power of Suppliers

4.2.2 Bargaining Power of Buyers

4.2.3 Threat of New Entrants

4.2.4 Threat of Substitutes

4.2.5 Degree of Competition

4.3 Industry Value Chain Analysis

4.4 An Assessment of the Impact of Key Macroeconomic Trends

5 MARKET DYNAMICS

5.1 Market Drivers

5.1.1 Technological Advancements Leading to the need for Test and Measurement Equipment

5.1.2 Emerging Trend of Electric and Hybrid Vehicle

5.2 Market Challenge/Restraint

5.2.1 Price Sensitivity and Increasing Preference for Rental Services

6 MARKET SEGMENTATION

6.1 By Type

6.1.1 Semiconductor Automatic Test Equipment (ATE)

6.1.2 Radio Frequency (RF) Test Equipment

6.1.3 Digital Test Equipment

6.1.4 Electrical and Environmental Test

6.1.5 Data Acquisition (DAQ)

6.2 By End-user Industry

6.2.1 Communications

6.2.2 Semiconductors and Computing

6.2.3 Aerospace and Defense

6.2.4 Consumer Electronics

6.2.5 Electric Vehicles (EVs)

6.2.6 Other End-user Industries

6.3 By Geography***

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.3.1 North America
- 6.3.2 Europe
- 6.3.3 Asia
- 6.3.4 Australia and New Zealand
- 6.3.5 Latin America
- 6.3.6 Middle East and Africa

7 VENDOR MARKET SHARE ANALYSIS

8 COMPETITIVE LANDSCAPE

8.1 Company Profiles*

- 8.1.1 Fortive Corporation
- 8.1.2 Keysight Technologies Inc.
- 8.1.3 Rohde & Schwarz GmbH & Co. KG
- 8.1.4 National Instruments Corporation
- 8.1.5 Anritsu Corporation
- 8.1.6 Teledyne Lecroy (Teledyne Technologies Incorporated)
- 8.1.7 Yokogawa Test & Measurement Corporation (Yokogawa Electric Corporation)
- 8.1.8 Teradyne Inc.
- 8.1.9 Chauvin Arnoux Group
- 8.1.10 Advantest Corporation

9 INVESTMENT ANALYSIS

10 MARKET OPPORTUNITIES AND FUTURE TRENDS

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Electrical and Electronic Test Equipment - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 136 pages | Mordor Intelligence

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-03-01
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com