

Semiconductor Automated Test Equipment (ATE): Market Research Report

<https://marketpublishers.com/r/S4F33879A6FEN.html>

Date: December 2018

Pages: 204

Price: US\$ 5,600.00 (Single User License)

ID: S4F33879A6FEN

Abstracts

This report analyzes the worldwide markets for Semiconductor Automated Test Equipment (ATE) in US\$ by the following Application Areas: Consumer Electronics, Telecom & IT, and Others. The Global market is further analyzed by the following Product Types and Components - Product Type: Memory, Non-Memory, and Others; Components: Contactors, Testers, and Others. The report provides separate comprehensive analytics for the US, Japan, Europe, China, South Korea, Taiwan, and Rest of World.

Annual estimates and forecasts are provided for the period 2016 through 2024.

Also, a five-year historic analysis is provided for these markets.

Market data and analytics are derived from primary and secondary research. Company profiles are primarily based on public domain information including company URLs.

The report profiles 39 companies including many key and niche players such as -

Advantest Corporation

Astronics Test Systems, Inc.

Chroma ATE Inc.

Cobham plc

Lorlin Test Systems, Inc.

LTX-Credence Corporation

Contents

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

Study Reliability and Reporting Limitations

Disclaimers

Data Interpretation & Reporting Level

Quantitative Techniques & Analytics

Product Definitions and Scope of Study

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW

Automated Test Equipment: Vital for Ensuring Quality & Integrity of Semiconductor Components

Semiconductor ATE: Market Overview

Market Fortunes Linked to Electronics Production

Table 1. Strong Growth in Finished Electronic Components Sends Ripples of Optimism Across the Electronics Supply Chain Benefiting CAPEX Spending in Semiconductor Industry & Spurring Opportunities for SEMI Equipment: World Electronic Components Market & Semiconductor CAPEX (In US\$ Billion) for the Years 2016 & 2018 (includes corresponding Graph/Chart)

GDP Growth and ATE Market

Table 2. World Real GDP Growth Rates in % for the Years 2016, 2017 & 2018 by Country/ Region (includes corresponding Graph/Chart)

Manufacturing PMI – An Important Bellwether

Table 3. Global Manufacturing PMI 2010-2017E (includes corresponding Graph/Chart)

A Peek into the Competitive Climate

Market Outlook

2. NOTEWORTHY MARKET TRENDS & DRIVERS

Boundary Scan and Functional ATEs Boost Growth of PCB ATE Market

Innovations in Semiconductors & Growing Complexity of Silicon Chips to Sustain Demand for ATE

Outsourcing of PCB and Semiconductor Testing Activity to Asia-Pacific Continues

Faster, High Precision and User-Friendly Test Instruments to Witness Strong Demand

Smartphones & Tablet PCs Emerge as UI Extensions for ATE

Review of Key Technology Trends

Application-Specific ATE and Functional Testing Grow in Prominence

Increasing Use of Embedded RF Chips Buoy Demand for Mixed-Domain Oscilloscope

Performance-Price of RF Testing Equipment to fall in Line with Moore's Law

RF Test Instrumentation Transitions from Analog to Digital Signal Processing

ATEs Evolve Into Software Defined Platforms Supported by Open Software Ecosystem

FPGA Based DSPs Become a Mainstay for Advanced RF Test Equipment

Testing Equipment Market Moves Towards PCI Express External Interfaces

User Programmable Measurement Algorithms on FPGA to Take T&M Instruments to the Next Level

A Peek into Secondary Market Forces Providing a Solid Foundation for Investments in SEMI Equipment

Smart Cities to Drive Demand for Internet of Things Providing Opportunities for ATE

Table 4. Global Spending on Smart City Infrastructure by End-use (2017 & 2020): Breakdown of Spend (Hardware, Software, and Services) in US\$ Million for Buildings & Homes, Education, Industry Automation, Power Supply, Security, and Others (includes corresponding Graph/Chart)

Table 5. Number of Smart Cities Worldwide (2013-2020) (includes corresponding Graph/Chart)

Table 6. Number of Smart Cities Worldwide by Geographic Region (2025) (includes corresponding Graph/Chart)

The Emerging Phenomenon of Digital Disruption Provides the Right Business Climate in Favor of Semiconductor ATE

Evolution of Smart Consumer Electronic Devices to Drive the Market

Smart Home Technologies Gaining Traction

Spurt in Consumer Electronics Supported by the Era of Mobility, Networking & Mobile Computing

New Network Technologies Encourage Growth in Telecom Investments

Table 7. Global CAPEX on 4G/LTE and 5G (In US\$ Billion) for the Years 2016, 2018 & 2020 (includes corresponding Graph/Chart)

Automotive Electronics on the Growth Highway

Table 8. Automotive Electronics as a Percentage of Vehicle Production Cost for the Years 2010, 2020 & 2030 (includes corresponding Graph/Chart)

Advanced Electronic Systems Drive Demand for Automotive Connectors

Increasing Electronic Content per Car Drives Demand for Connectors

Table 9. Global Automotive Connectors Market (2017E): Percentage Breakdown of Dollar Sales by Application (includes corresponding Graph/Chart)

Table 10. Leading Players in the Global Automotive Connectors Market (2016): Percentage Breakdown of Revenues for Delphi, JAE, Sumitomo, TE Connectivity, Yazaki, and Others (includes corresponding Graph/Chart)

X by Wire Technologies Spur the Popularity of Multiplex Wiring Systems

Table 11. Global OEM Market for X by Wire Systems (in 000 Units) by System Type for the Years 2017 & 2022 (includes corresponding Graph/Chart)

Popularity of LED Lighting to Drive Growth for ATE

Evolution of Smart & Connected Cars Drives the Wave of Automobile Electronification

Table 12. Breakdown of the Global Automotive Electronics Market (In US\$ Billion) by Application for the Year 2020 (includes corresponding Graph/Chart)

Smart Factories & IIoT to Support the Projected Spurt in Industrial Electronics

Table 13. The Projected 43% Growth in Industrial Semiconductors by 2022 Sets the Right Business Climate for Semiconductor ATE in the Industrial Electronics Sector: Breakdown of the World Industrial Semiconductor Market (In US\$ Billion) for the Years 2016, 2019 & 2022 (includes corresponding Graph/Chart)

Growing Complexity of Aerospace Electronics Fuels the Need for Advanced ATE for Avionics Systems

Table 14. Growth in Aerospace Electronics Opens New Market Opportunities for Semiconductor ATE for Avionics: Breakdown of Global Semiconductor Revenues in the Military & Civil Aerospace Sector (In US\$ Million) for the Years 2016, 2019 & 2022 (includes corresponding Graph/Chart)

3. PRODUCT OVERVIEW

Automated Test Equipment (ATE)
Semiconductor Automated Test Equipment (ATE)
Components of an ATE
Testers
Handler or Prober
Contactor
Interface Boards
Mass Interconnect
Controller
Industrial PC
Software Component
Types of Testing Methods
Applications of ATE
Benefits of Automated Testing
Disadvantages of Automated Testing

4. PRODUCT INNOVATIONS/INTRODUCTIONS

Astronics Expands ATS 5034 System-Level Test (SLT) Platform
Marvin Introduces Marvin Test Expansion Kit Subsystem
Chroma ATE Unveils Chroma 3680 Advanced SoC Test System

Advantest Corporation Unveils HF-AWGD Module
Marvin Test Solutions Introduces TS-960e Semiconductor Test Platform
Astronics Test Systems Introduces ATS 5034 SLT Platform
STAr Technologies Unveils STAr APOLLO
Marvin Test Solutions Introduces TS-960 Semiconductor Test Platform
Teradyne Unveils ETS-88TH
Advantest Introduces EVA100 Digital Solution
Advantest Introduces New High-Speed T5851 Semiconductor Memory Tester
Advantest to Showcase TS9000 MTA, and NEW TDR Terahertz Analysis Systems for Advanced ICs
Advantest to Display Latest Semiconductor T&M and Nanotechnology Solutions at SEMICON Europa in Germany
Advantest Launches HSM16G Test Card
inTEST Thermal Solutions Introduces Benchtop Systems for IC Temperature Testing
Teradyne to Display Integrated Lab and Production Testing Solutions at SEMICON China

5. RECENT INDUSTRY ACTIVITY

STAr Technologies Expands Indian Subsidiary
Aemulus and Peregrine Semiconductor Corp. Enter into Partnership for High Frequency Testing
Astronics Test Systems Bags Follow-on Orders from Largest Customer
Somerset Capital Group Expands Leasing Agreement with BSE
Cohu Acquires Kita
aps Solutions and Mechanical Devices Ltd. Enter into a Distributor & Service Agreement
NI Partners with Astronics for Strengthening Traditional Aerospace and Defense Test Systems
NCIA Enters into MoU with Fabtronic & Advantest for a New Chip Test Lab
Advantest Delivers 4000th V93000 Semiconductor Test Solution to Ardentec
Advantest Receives First Order from Shanghai Haier IC for V93000 Semiconductor Test System

6. FOCUS ON SELECT PLAYERS

Advantest Corporation (Japan)
Astronics Test Systems, Inc. (USA)
Chroma ATE Inc. (Taiwan)

Cobham plc (UK)
CREA (Collaudi Elettronici Automatizzati S. r. l.) (Italy)
Lorlin Test Systems, Inc. (USA)
LTX-Credence Corporation (USA)
Marvin Test Solutions, Inc. (USA)
National Instruments Corporation (USA)
Roos Instruments, Inc. (USA)
STAr Technologies Inc. (Taiwan)
Tektronix, Inc. (USA)
Teradyne, Inc. (USA)

7. GLOBAL MARKET PERSPECTIVE

Table 15. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 16. World Historic Review for Semiconductor Automated Test Equipment (ATE) by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 17. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Geographic Region - Percentage Breakdown of Dollar Sales for US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Semiconductor ATE End-Use Application Markets by Country/Region

Table 18. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) in Consumer Electronics Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 19. World Historic Review for Semiconductor Automated Test Equipment (ATE)

in Consumer Electronics Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 20. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) in Consumer Electronics Applications by Geographic Region - Percentage Breakdown of Dollar Sales for US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 21. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) in Telecom & IT Device Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 22. World Historic Review for Semiconductor Automated Test Equipment (ATE) in Telecom & IT Device Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 23. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) in Telecom & IT Device Applications by Geographic Region - Percentage Breakdown of Dollar Sales for US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 24. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) in Other Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 25. World Historic Review for Semiconductor Automated Test Equipment (ATE) in Other Applications by Geographic Region - US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 26. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) in Other Applications by Geographic Region - Percentage Breakdown of Dollar Sales for US, Japan, Europe, China, South Korea, Taiwan, and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Semiconductor ATE Market by Product Type

Table 27. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Product Type - Memory, Non-Memory, and Discrete Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 28. World Historic Review for Semiconductor Automated Test Equipment (ATE) by Product Type - Memory, Non-Memory, and Discrete Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 29. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Product Type - Percentage Breakdown of Dollar Sales for Memory, Non-Memory, and Discrete Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Semiconductor ATE Market by Component

Table 30. World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Component - Contactors, Testers and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 31. World Historic Review for Semiconductor Automated Test Equipment (ATE) by Component - Contactors, Testers and Others Markets Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 32. World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Component - Percentage Breakdown of Dollar Sales for Contactors, Testers and Others Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES

A. Market Analysis

Current and Future Analysis

Semiconductor ATE Vendors Adopt Novel Strategies to Tackle Competition Pressure

Military Spending Cuts Fuel Trend towards Refinement of Legacy Test Systems

Demand for Military Testing Systems for MRO Services on the Rise

Growing Call for Common Core ATE for All Armed Forces

New Standards and Synthetic Instrumentation to Lay Foundation for New-Generation Military ATE

Unmanned Aerial Systems – A Fast Emerging Segment for Military ATE

Product Launches

Strategic Corporate Developments

Key Players

B. Market Analytics

Table 33. The US Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 34. The US Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 35. The US 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

2. JAPAN

A. Market Analysis

Current and Future Analysis

Product Launches

Advantest Corporation – A Key Player

B. Market Analytics

Table 36. Japanese Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 37. Japanese Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 38. Japanese 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

3. EUROPE

A. Market Analysis

Current and Future Analysis

Strategic Corporate Development

Key Players

B. Market Analytics

Table 39. European Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 40. European Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 41. European 14-Year Perspective for Semiconductor Automated Test

Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024
(includes corresponding Graph/Chart)

4. CHINA

A. Market Analysis

Current and Future Analysis

Electronics Manufacturing Spurs ATE Market in China

Strategic Corporate Development

B. Market Analytics

Table 42. Chinese Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 43. Chinese Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 44. Chinese 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

5. SOUTH KOREA

A. Market Analysis

Current and Future Analysis

B. Market Analytics

Table 45. South Korean Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 46. South Korean Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 47. South Korean 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

6. TAIWAN

A. Market Analysis

Current and Future Analysis

Large Electronic Device Manufacturing & Semiconductor Fabrication Industries Makes Taiwan the Largest Market for Semiconductor ATE

Product Launches

Strategic Corporate Development

Key Players

B. Market Analytics

Table 48. Taiwan Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 49. Taiwan Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 50. Taiwan 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

7. REST OF WORLD

- A. Market Analysis
 - Current and Future Analysis
 - Strategic Corporate Developments
- B. Market Analytics

Table 51. Rest of World Recent Past, Current & Future Analysis for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 52. Rest of World Historic Review for Semiconductor Automated Test Equipment (ATE) by Application - Consumer Electronics, Telecom & IT and Other Applications Independently Analyzed with Annual Sales in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 53. Rest of World 14-Year Perspective for Semiconductor Automated Test Equipment (ATE) by Application - Percentage Breakdown of Dollar Sales for Consumer Electronics, Telecom & IT and Other Applications for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

IV. COMPETITIVE LANDSCAPE

Total Companies Profiled: 39 (including Divisions/Subsidiaries - 48)

The United States (27)

Canada (1)

Japan (5)

Europe (9)

France (1)

Germany (1)

The United Kingdom (3)

Italy (3)

Rest of Europe (1)

Asia-Pacific (Excluding Japan) (6)

I would like to order

Product name: Semiconductor Automated Test Equipment (ATE): Market Research Report

Product link: <https://marketpublishers.com/r/S4F33879A6FEN.html>

Price: US\$ 5,600.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S4F33879A6FEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970