

OTA Testing Market by Test Chambers, Antenna Testing Solutions, Software, Services, 5G, LTE, UMTS, GSM, CDMA, Wi-Fi, Bluetooth, Smartphones, Laptops, Notebooks & Tablets, Wearables, Automotive & Transportation and Smart Cities - Global Forecast to 2029

Market Report | 2024-09-26 | 237 pages | MarketsandMarkets

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Report description:

The OTA testing market is projected to reach USD 3.17 billion by 2029 from USD 2.23 billion in 2024 at a CAGR of 7.3% during the forecast period. The major factors driving the growth of the market are rising demand for wireless consumer devices, growing adoption of 5G technology, expansion of the Internet of Things (IoT) ecosystem, and stringent regulatory requirements for wireless devices. Further, increasing development in autonomous vehicles, rising smart city initiatives along with infrastructure, and advancements in millimeter-wave (mmwave), as well as massive multiple-input multiple-output (MIMO) technologies open new growth avenues for market participants. OTA testing checks the efficiency of an antenna, the quality of the signal, and standards compliance regarding wireless performance. It is of prime importance in ensuring performance in a real environment, whether it be a smartphone, IoT device, or automotive system in operation for various wireless communication protocols. "Test chambers to register the largest market share in OTA testing solutions segment during the forecast period." The test chambers segment is expected to constitute the largest share in the solutions market of OTA testing because it has been largely deployed for isolating a device from external RF interference. Test chambers or Anechoic chambers are basically designed for the accurate measurement of antenna performance, signal propagation, and device behavior under controlled conditions, which is a critical feature for ensuring compliance with stringent industry standards. High-quality anechoic chambers also received an increase in demand with the ever-increasing use of advanced wireless technologies such as 5G and mmWave technologies that demand precise RF testing. Test chambers are utilized in the testing of devices across a wide range of frequencies, environments, and use cases.

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"Cellular Networks to account for the largest share in technology segment during the forecast period."

The cellular network segment to account for the largest share within the OTA Testing market, due to the high-scale expansion and wide usage of cellular technologies, particularly the 5G technology. Cellular networks will be required across various frequency bands like sub-6 GHz or mmWave for 5G applications, all of which will need comprehensive OTA testing to determine their optimal performance, signal reliability, and adherence to a wide range of regulations. The growth is driven by the complex nature of cellular communication, with a number of use cases that include mobile broadband, IoT, and vehicle-to-everything communication. Furthermore, cellular standards are ever-evolving from LTE to 5G and beyond, while testing is continually performed in accordance with strict norms on devices, antennas, and infrastructure.

" Asia Pacific to register the highest growth during the forecast period."

Asia Pacific to register the highest CAGR during the forecast period, due to several key factors. The significant rise in the rollout of 5G in leading markets such as China, South Korea, and Japan have driven the demand for OTA testing to ensure network performance and device compliance with advanced standards. The recent development of connected and autonomous vehicles requires increasingly rigorous performance and safety tests conducted over the air, as well as connectivity testing in complex automotive systems. Its leading position in global electronics manufacturing also propels the need for comprehensive OTA testing to keep high-quality standards across a wide range of consumer and industrial devices. Recent government initiatives in the region include heavy investment plans in telecommunication infrastructure and regulatory support for technological advancements, further helping the growth of the OTA testing market in the Asia Pacific at a rapid pace.

The break-up of the profile of primary participants in the OTA testing market-

- By Company Type: Tier 1 - 30%, Tier 2 - 50%, Tier 3 - 20%

- By Designation Type: C Level - 25%, Director Level - 35%, Others - 40%

-[By Region Type: Europe - 35%, Asia Pacific - 30%, North America - 25%, Rest of the World - 10%

The major players in the OTA testing market with a significant global presence include Rhode & Schwarz (Germany), Keysight Technologies (US), Anritsu (Japan), SGS SA (Switzerland), Intertek Group plc (UK), and others.

Research Coverage

The report segments the OTA testing market and forecasts its size by offering, technology, end users, and region. It also provides a comprehensive review of drivers, restraints, opportunities, and challenges influencing market growth. The report covers qualitative aspects in addition to quantitative aspects of the market.

Reasons to buy the report:

The report will help the market leaders/new entrants in this market with information on the closest approximate revenues for the overall OTA testing market and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

- Analysis of key drivers (rising demand for wireless consumer devices, growing adoption of 5G technology, expansion of internet of things (IoT) ecosystem, stringent regulatory requirements for wireless devices), restraints (High cost of OTA testing equipment, complexity of OTA testing procedures, and limited availability of testing facilities), opportunities (advancements in autonomous vehicles, growth in smart city initiatives and infrastructure, advancements in Millimeter wave (mmWave) and massive MIMO technologies), and challenges (rapidly evolving wireless standards and technologies, simulating real-world conditions in laboratory environments)
- Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new solution and service launches in the OTA testing market.
- Market Development: Comprehensive information about lucrative markets the report analyses the OTA testing market across

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varied regions.

- Market Diversification: Exhaustive information about new solutions and services, untapped geographies, recent developments, and investments in the OTA testing market.
- Competitive Assessment: In-depth assessment of market shares, growth strategies, and solution and service offerings of leading players, including Rhode & Schwarz (Germany), Keysight Technologies (US), Anritsu (Japan), SGS SA (Switzerland), and Intertek Group plc (UK).

Table of Contents:

- 1∏INTRODUCTION∏24
- 1.1 STUDY OBJECTIVES 24
- 1.2∏MARKET DEFINITION∏24
- 1.3∏STUDY SCOPE∏25
- 1.3.1 MARKETS COVERED AND REGIONAL SCOPE 25
- 1.3.2 □INCLUSIONS AND EXCLUSIONS □ 26
- 1.3.2.1 □Inclusions and exclusions, by company □26
- 1.3.2.2 Inclusions and exclusions, by offering 26
- 1.3.2.3 Inclusions and exclusions, by technology 26
- 1.3.2.4 Inclusions and exclusions, by end user 26
- 1.3.2.5 Inclusions and exclusions, by region 26
- 1.3.3 YEARS CONSIDERED 27
- 1.4 CURRENCY 27
- 1.5 LIMITATIONS 27
- 1.6 UNITS CONSIDERED 27
- 1.7□STAKEHOLDERS□28
- 1.8 SUMMARY OF CHANGES 28
- 2 RESEARCH METHODOLOGY 29
- 2.1 RESEARCH APPROACH 29
- 2.1.1 SECONDARY DATA 30
- 2.1.1.1 Major secondary sources 30
- 2.1.1.2 Key data from secondary sources 31
- 2.1.2 PRIMARY DATA 31
- 2.1.2.1 Primary interviews with experts □31
- 2.1.2.2 List of key primary interview participants □31
- 2.1.2.3 Breakdown of primaries 32
- 2.1.2.4 Key data from primary sources 32
- 2.1.3 SECONDARY AND PRIMARY RESEARCH 33
- 2.1.3.1 Key industry insights 33
- 2.2□MARKET SIZE ESTIMATION□34
- 2.2.1 BOTTOM-UP APPROACH 34
- 2.2.2 TOP-DOWN APPROACH 35
- 2.3 FACTOR ANALYSIS 36
- 2.3.1 SUPPLY-SIDE ANALYSIS 36
- 2.3.2 GROWTH FORECAST ASSUMPTIONS ☐ 36
- 2.4 MARKET BREAKDOWN AND DATA TRIANGULATION 37
- 2.5 RESEARCH ASSUMPTIONS 38
- 2.6 RISK ASSESSMENT 38
- 3 EXECUTIVE SUMMARY 39

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4 PREMIUM INSIGHTS 43

- 4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN OTA TESTING MARKET 43
- 4.2

 ☐
 OTA TESTING MARKET, BY CELLULAR NETWORK

 ☐
 43
- 4.3 OTA TESTING MARKET, BY OFFERING 44
- 4.4□OTA TESTING MARKET, BY END USER□44
- 4.5 ASIA PACIFIC: OTA TESTING MARKET, BY END USER AND COUNTRY 4.5
- 5 MARKET OVERVIEW 46
- 5.1 INTRODUCTION 46
- 5.2 MARKET DYNAMICS 46
- 5.2.1 DRIVERS 147
- 5.2.1.1 Rising demand for wireless consumer devices 47
- 5.2.1.2 Growing adoption of 5G technology 48
- 5.2.1.3 Expansion of Internet of Things (IoT) ecosystem 48
- 5.2.1.4 Stringent regulatory requirements for wireless devices 48
- 5.2.2 RESTRAINTS 50
- 5.2.2.1 High cost of OTA testing equipment 50
- 5.2.2.2 Complexity of OTA testing procedures 50
- 5.2.2.3 Limited availability of testing facilities 50
- 5.2.3 OPPORTUNITIES 51
- 5.2.3.1 Advancements in autonomous vehicles 51
- 5.2.3.2 Growth in smart city initiatives and infrastructure 52
- 5.2.3.3 Advancements in mmWave and massive MIMO technologies 52
- 5.2.4 CHALLENGES 53
- 5.2.4.1 Rapidly evolving wireless standards and technologies 53
- 5.2.4.2 Simulating real-world conditions in laboratory environments 54
- 5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS 55
- 5.4 PRICING ANALYSIS 56
- 5.4.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY OFFERING 56
- 5.4.2 AVERAGE SELLING PRICE TREND OF TEST CHAMBER, BY REGION 57
- 5.5∏SUPPLY CHAIN ANALYSIS∏58
- 5.6 ECOSYSTEM ANALYSIS 59
- 5.7∏INVESTMENT AND FUNDING SCENARIO∏62
- 5.8∏TECHNOLOGY ANALYSIS∏62
- 5.8.1 KEY TECHNOLOGIES 62
- 5.8.1.1 OTA test chambers 62
- 5.8.2 COMPLEMENTARY TECHNOLOGIES 63
- 5.8.2.1 Massive MIMO 63

?

- 5.8.3 ADJACENT TECHNOLOGIES 63
- 5.8.3.1 Autonomous vehicles 63
- 5.9 PATENT ANALYSIS 63
- 5.10 TRADE ANALYSIS 65
- 5.10.1 EXPORT SCENARIO (HS CODE 903180) 65
- 5.10.2 IMPORT SCENARIO (HS CODE 903180) 66
- 5.11 KEY CONFERENCES & EVENTS, 2024-2025 67
- 5.12 CASE STUDY ANALYSIS 69
- 5.12.1 OTA TESTING SOLUTION ENABLED XIAOMI TO VALIDATE PERFORMANCE

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OF ITS 5G DEVICES∏69

5.12.2 OTA TESTING SOLUTIONS ENABLED BOSCH TO VALIDATE ITS

UWB APPLICATIONS∏69

5.12.3 OTA TEST SYSTEM HELPED TMYTEK ACCELERATE PRODUCT

DEVELOPMENT CYCLE □ 70

5.13 REGULATORY LANDSCAPE 70

5.13.1 ⊓REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS □71

5.14 PORTER'S FIVE FORCES ANALYSIS 73

5.14.1 THREAT OF NEW ENTRANTS 74

5.14.2 THREAT OF SUBSTITUTES 74

5.14.3 BARGAINING POWER OF SUPPLIERS 74

5.14.4 BARGAINING POWER OF BUYERS 75

5.14.5 INTENSITY OF COMPETITIVE RIVALRY 175

5.15 KEY STAKEHOLDERS & BUYING CRITERIA 75

5.15.1 KEY STAKEHOLDERS IN BUYING PROCESS 75

5.15.2 BUYING CRITERIA 76

5.16 IMPACT OF AI/GEN AI ON OTA TESTING MARKET 77

6 OTA TESTING MARKET, BY OFFERING 78

6.1□INTRODUCTION□79

6.2∏SOLUTIONS∏80

6.2.1 TEST CHAMBERS 84

6.2.1.1 Increasing complexity and demand for accurate testing of

advanced wireless technologies to propel market growth 184

6.2.1.2 Compact antenna test ranges (CATRs) 85

6.2.1.3 Multi-probe anechoic chambers (MPAC) 85

6.2.1.4 Direct far-field (DFF) chambers 85

6.2.2 ANTENNA TESTING SOLUTIONS 86

6.2.2.1 Expansion of wireless technologies, particularly with advent of

5G and MIMO systems, to drive market growth <a>[86

6.2.3∏SOFTWARE∏86

 $6.2.3.1\mbox{\ensuremath{\square}\xspace}$ Growing demand for more advanced OTA testing software to

support market growth \ 86

?

6.3 SERVICES 87

6.3.1 RAPID ADVANCEMENT OF WIRELESS TECHNOLOGIES AND

STRICTER REGULATIONS AND STANDARDS TO DRIVE GROWTH 187

6.3.2 TOTAL RADIATED POWER (TRP) TESTING 88

6.3.3 TOTAL ISOTROPIC SENSITIVITY (TIS) TESTING 88

 $6.3.4 \square A\text{-GNSS RECEIVER SENSITIVITY TESTING} \square 88$

6.3.5 DESENSITIZATION TESTING FOR CONVERGED WI-FI AND 5G TECHNOLOGIES 188

7 OTA TESTING MARKET, BY TECHNOLOGY 93

7.1 INTRODUCTION 94

7.2 CELLULAR NETWORK 95

7.3 SG 96

7.3.1 \square RAPID DEPLOYMENT OF 5G TECHNOLOGY TO DRIVE MARKET GROWTH \square 96

7.3.2 5G FR1/5G FR2 96

7.3.3 5G NR NSA/SA 96

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- 7.3.4 LTE 97
- 7.3.5 UMTS 97
- 7.3.6 GSM 97
- 7.3.7□CDMA□97
- 7.4□WI-FI□97
- 7.4.1 EVOLUTION OF WI-FI TECHNOLOGIES, INCLUDING WI-FI 6E AND

UPCOMING WI-FI 7, TO DRIVE MARKET GROWTH□97

- 7.4.2 | WI-FI 6 (802.11AX) | 98
- 7.4.3 WI-FI 7 (802.11BE) 98
- 7.5 BLUETOOTH 98
- 7.5.1 RAPID PROLIFERATION OF BLUETOOTH LOW ENERGY (BLE) DEVICES TO

DRIVE DEMAND∏98

- 7.5.2□BLUETOOTH CLASSIC□99
- 7.5.3 BLUETOOTH LOW ENERGY (BLE) 99
- 7.6 OTHER TECHNOLOGIES 99
- 8⊓OTA TESTING MARKET, BY END USER 100
- 8.1□INTRODUCTION□101
- 8.2 CONSUMER DEVICES 102
- 8.2.1 GROWING INTEGRATION OF 5G TECHNOLOGIES WITH ADVANCED

MULTI-ANTENNA SYSTEMS DRIVING GROWTH 102

- 8.3∏SMARTPHONES∏105
- 8.3.1 RAPID ADOPTION OF ADVANCED TECHNOLOGIES, INCLUDING 5G NR,

WI-FI 6/6E, AND BLUETOOTH 5, TO DRIVE DEMAND 105

- 8.3.2 LAPTOPS, NOTEBOOKS & TABLETS 106
- 8.3.2.1 Increasing integration of 5G capabilities and advanced wireless technologies into laptops to drive demand 106?

8.3.3 | WEARABLES | 106

- 8.3.3.1 Growing adoption of advanced wearable technologies to
- support market growth 106
- 8.3.4 □OTHER CONSUMER DEVICES □ 106
- 8.4 AUTOMOTIVE & TRANSPORTATION 107
- 8.4.1 ⊓INCREASING INTEGRATION OF CONNECTED CAR TECHNOLOGIES

AND AUTONOMOUS DRIVING SYSTEMS TO FUEL DEMAND □107

- 8.5 INDUSTRIAL 110
- 8.5.1 RAPID ADOPTION OF INDUSTRY 4.0 AND IOT TECHNOLOGIES TO

SUPPORT MARKET GROWTH 110

- 8.6 SMART CITIES 113
- 8.6.1 □PUSH TOWARD SMART CITY DEVELOPMENT TO SUPPORT MARKET GROWTH □113
- 8.7 OTHER END USERS 116
- 9□OTA TESTING MARKET, BY REGION□119
- 9.1 INTRODUCTION 120
- 9.2 NORTH AMERICA 121
- 9.2.1 | MACROECONOMIC OUTLOOK FOR NORTH AMERICA | 123
- 9.2.2[US[]123
- 9.2.2.1 Rapid expansion of 5G networks to drive market growth 123
- 9.2.3 CANADA 124
- 9.2.3.1 Accelerating 5G rollout and government initiatives promoting innovation in wireless technologies to boost demand 124

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- 9.2.4 MEXICO 125
- 9.2.4.1 Expanding electronics manufacturing sector to drive market growth 125
- 9.3∏EUROPE∏125
- 9.3.1 MACROECONOMIC OUTLOOK FOR EUROPE 128
- 9.3.2 GERMANY 128
- 9.3.2.1 Leadership in Industry 4.0 and advancements in connected and autonomous vehicles to drive market 128
- 9.3.3∏UK∏129
- 9.3.3.1 Growing adoption of IoT technologies in smart homes and smart city initiatives to propel growth 129
- 9.3.4 | FRANCE | 129
- 9.3.4.1 Automotive sector to contribute significantly to growth in demand for OTA testing 129
- 9.3.5 | SPAIN | 130
- 9.3.5.1∏Significant investments in advanced wireless technologies and digital transformation to fuel demand 130
- 9.3.6 REST OF EUROPE 130
- 9.4∏ASIA PACIFIC∏131
- 9.4.1 MACROECONOMIC OUTLOOK FOR ASIA PACIFIC 133
- 9.4.2 | CHINA | 134
- 9.4.2.1 Rapid deployment of 5G technology and significant investment in
- IoT infrastructure to drive growth 134
- 9.4.3∏APAN∏135
- 9.4.3.1 Focus on next-generation wireless technologies and developing connected and autonomous vehicles to support market growth $\square 135$
- 9.4.4 INDIA 135
- 9.4.4.1 Rapid 5G rollout and booming electronics manufacturing sector to drive growth 135
- 9.4.5 SOUTH KOREA 136
- 9.4.5.1 Strong emphasis on developing and maintaining high-performance semiconductor manufacturing to drive growth 136
- 9.4.6 TAIWAN 137
- 9.4.6.1 Advancements in testing methodologies for 5G and

beyond-5G technologies to drive market 137

- 9.4.7 SINGAPORE 137
- 9.4.7.1 Comprehensive 5G rollout plans and advanced smart nation initiatives to drive market growth 137
- 9.4.8 REST OF ASIA PACIFIC 137
- 9.5 REST OF THE WORLD 138
- 9.5.1⊓SOUTH AMERICA⊓140
- 9.5.1.1 Growing adoption of wireless communication and networking technologies to drive market growth 140
- 9.5.2 MIDDLE EAST 140
- 9.5.2.1 Advancements in telecommunications infrastructure and

technology adoption to drive growth \140

- 9.5.2.2 GCC Countries 141
- 9.5.2.3 Rest of Middle East 141
- $9.5.3 \square AFRICA \square 142$
- 9.5.3.1 Rapid mobile technology adoption and telecom infrastructure expansion to drive market 142
- 10 COMPETITIVE LANDSCAPE 143
- 10.1∏INTRODUCTION∏143
- 10.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2021?2024 143
- 10.2.1 ORGANIC/INORGANIC GROWTH STRATEGIES 145
- 10.2.2 PRODUCT/SERVICE PORTFOLIO 145
- 10.2.3 GEOGRAPHICAL PRESENCE 145

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- 10.2.4 GLOBAL FOOTPRINT 145
- 10.3 REVENUE ANALYSIS 145
- 10.4 MARKET SHARE ANALYSIS 146
- 10.5 COMPANY VALUATION AND FINANCIAL METRICS 147
- 10.6 PRODUCT/BRAND COMPARISON 148
- 10.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023 149
- 10.7.1 STARS 149
- 10.7.2∏EMERGING LEADERS∏149
- 10.7.3 PERVASIVE PLAYERS 149
- 10.7.4 PARTICIPANTS □ 149
- 10.7.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023 152
- 10.7.5.1 Company footprint 152
- 10.7.5.2 Offering footprint 153
- 10.7.5.3 Technology footprint 154
- 10.7.5.4∏End user footprint∏155
- 10.7.5.5 Region footprint 156
- 10.8 STARTUPS/SMES EVALUATION MATRIX, 2023 157
- 10.8.1 PROGRESSIVE COMPANIES 157
- 10.8.2 RESPONSIVE COMPANIES 157
- 10.8.3 DYNAMIC COMPANIES 157
- 10.8.4 STARTING BLOCKS 157
- 10.8.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023 159
- 10.8.5.1 Detailed list of key startups/SMEs 159
- 10.8.5.2 Competitive benchmarking of key startups/SMEs 159
- 10.9 COMPETITIVE SCENARIO 161
- 10.9.1 PRODUCT/SOLUTION/SERVICE LAUNCHES 161
- 10.9.2 DEALS 163
- 10.9.3∏EXPANSIONS∏169
- 11 COMPANY PROFILES 171
- 11.1 INTRODUCTION 171
- 11.2 KEY PLAYERS 171
- 11.2.1 ROHDE & SCHWARZ 171
- 11.2.1.1 Business overview □171
- 11.2.1.2 Products/Solutions/Services offered 172
- 11.2.1.3 Recent developments 174
- 11.2.1.3.1 Product launches 174
- 11.2.1.3.2 Deals 174
- 11.2.1.4 MnM View 176
- 11.2.1.4.1 Key strengths/Right to win 176
- 11.2.1.4.2 Strategic choices 176
- 11.2.1.4.3 Weaknesses and competitive threats 176
- 11.2.2 KEYSIGHT TECHNOLOGIES 177
- 11.2.2.1 Business overview 177
- 11.2.2.2 Products/Solutions/Services offered 178
- 11.2.2.3 Recent developments 180
- $11.2.2.3.1 \verb||Product launches|| 180$
- 11.2.2.3.2 Deals 180

Scotts International. EU Vat number: PL 6772247784

? 11.2.2.4 MnM View 182 11.2.2.4.1 Key strengths/Right to win 182 11.2.2.4.2 Strategic choices 182 11.2.2.4.3 Weaknesses and competitive threats 182 11.2.3 ANRITSU 183 11.2.3.1 Business overview 183 11.2.3.2 Products/Solutions/Services offered 184 11.2.3.3 Recent developments 186 11.2.3.3.1 Product launches 186 11.2.3.3.2 Deals 186 11.2.3.4 MnM View 187 11.2.3.4.1 Key strengths/Right to win 187 11.2.3.4.2 Strategic choices 187 11.2.3.4.3 Weaknesses and competitive threats 187 11.2.4∏SGS SA∏188 11.2.4.1 Business overview 188 11.2.4.2 Products/Solutions/Services offered 190 11.2.4.3 Recent developments 190 11.2.4.3.1 Deals 190 11.2.4.3.2 Expansions 190 11.2.4.4 MnM view 191 11.2.4.4.1 | Key strengths/Right to win | 191 11.2.4.4.2 Strategic choices 191 11.2.4.4.3 Weaknesses and competitive threats 191 11.2.5∏INTERTEK GROUP PLC∏192 11.2.5.1 Business overview 192 11.2.5.2 Products/Solutions/Services offered 193 11.2.5.3 Recent developments 194 11.2.5.3.1 Deals 194 11.2.5.4 \(MnM \) view \(\| 194 \) 11.2.5.4.1 Key strengths/Right to win 194 11.2.5.4.2 Strategic choices 194 11.2.5.4.3 \text{\text{Weaknesses}} and competitive threats \text{\text{\text{\text{194}}} 11.2.6 NATIONAL INSTRUMENTS 195 11.2.6.1 Business overview 195 11.2.6.2 Products/Solutions/Services offered 195 11.2.7 UL LLC 197 11.2.7.1 Business overview 197 11.2.7.2 Products/Solutions/Services offered 197 11.2.8 SPIRENT COMMUNICATIONS 198 11.2.8.1 Business overview 198 11.2.8.2 Products/Solutions/Services offered 199 11.2.8.3 Recent developments 200

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11.2.8.3.1 Product launches 200

11.2.8.3.2∏Deals∏200

- 11.2.9 BUREAU VERITAS 201
- 11.2.9.1 Business overview 201
- 11.2.9.2 Products/Solutions/Services offered 202
- 11.2.9.3 Recent developments 203
- 11.2.9.3.1 Expansions 203
- 11.2.10 EUROFINS SCIENTIFIC 204
- 11.2.10.1 Business overview 204
- 11.2.10.2 Products/Solutions/Services offered 205
- 11.2.10.3 Recent developments 206
- 11.2.10.3.1 Deals 206
- 11.2.10.3.2 | Expansions | 206
- 11.2.11 | DEKRA | 207
- 11.2.11.1 Products/Solutions/Services offered 208
- 11.2.11.2 Recent developments 209
- 11.2.11.2.1 Expansions 209
- 11.2.12 TUV RHEINLAND 210
- 11.2.12.1 Business overview 210
- 11.2.12.2 Products/Solutions/Services offered 211
- 11.2.12.3 Recent developments 212
- 11.2.12.3.1 Product launches 212
- 11.2.13 ELEMENT MATERIALS TECHNOLOGY 213
- 11.2.13.1 Business overview 213
- 11.2.13.2 Products/Solutions/Services offered 213
- 11.2.13.3 Recent developments 214
- 11.2.13.3.1 Deals 214
- 11.2.14 TUV SUD 215
- 11.2.14.1 Business overview 215
- 11.2.14.2 Products/Solutions/Services offered 216
- 11.2.14.3 Recent developments 217
- $11.2.14.3.1 \verb|[Expansions|]| 217$
- 11.2.15 TERADYNE INC. 218
- 11.2.15.1 Business overview 218
- $11.2.15.2 \verb||Products/Solutions/Services| offered \verb||| 219$
- 11.2.16 MICROWAVE VISION GROUP 221
- 11.2.16.1 Business overview 221
- 11.2.16.2 Products/Solutions/Services offered 221
- 11.3 OTHER PLAYERS 223
- 11.3.1 TOYO CORPORATION 223
- 11.3.2 ORBIS SYSTEMS OY 224
- 11.3.3 DSPACE GMBH 225
- 11.3.4 DVTEST INC. 225
- 11.3.5 COPPER MOUNTAIN TECHNOLOGIES 226
- 11.3.6 ☐ ETS-LINDGREN ☐ 227
- 11.3.7 TESTILABS OY 227
- 11.3.8 VERKOTAN 228
- 11.3.9 CETECOM ADVANCED 229
- 12 APPENDIX 230

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- 12.1 INSIGHTS OF INDUSTRY EXPERTS 230
- 12.2 DISCUSSION GUIDE 230
- 12.3 KNOWLEDGESTORE: MARKETSANDMARKETS? SUBSCRIPTION PORTAL 233
- 12.4 CUSTOMIZATION OPTIONS 235
- 12.5 RELATED REPORTS 235
- 12.6 AUTHOR DETAILS 236



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Zip Code*	Country*	
	Date	2025-05-20
	Signature	