

Micro Battery Market by Type (Thin Film, Printed, Solid-state Chip, Button), Capacity (Below 10 mAh, 10 to 100 mAh, Above 100 mAh), Battery Type (Primary, Secondary), Application (Smart cards, Wireless Sensors) and Region - Global Forecast to 2028

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Report description:

The global micro battery market size is expected to grow from USD 0.5 billion in 2023 to USD 1.3 billion by 2028, at a CAGR of 22.4% from 2023 to 2028. Thin-film batteries enable devices to be lightweight and store energy in small packages. Printed batteries are an excellent power source for transdermal medical patches that are applied directly to a patient's skin to monitor body temperature. The demand for these medical patches is growing, increasing the demand for thin-film, printed, and flexible batteries to power such patches.

" Button battery segment is projected to hold a substantial share during the forecast period"

Button batteries are tiny discs -shaped, lightweight, low-power devices. These batteries are inexpensive, reasonably safe, and have a long shelf life. They have high leak protection and a high weight-to-power ratio. These batteries are easy to stack for higher voltages. Lithium coin cells are available in a wide range of sizes and capacities. Some of the companies which are offering button batteries/cells include TDK Corporation (Japan), Panasonic Holdings Corporation (Japan), Murata Manufacturing Co., Ltd. (Japan), VARTA AG (Germany), Renata SA (Switzerland), Duracell Inc. (US), Maxell, Ltd. (Japan), and STMicroelectronics International N.V. (Switzerland).

"Medical devices application is expected to grow at a significant CAGR during the forecast period"

Technological advancements and the penetration of IoT in the medical field have generated opportunities for new battery technologies. Implantable medical devices require batteries that can deliver a steady, reliable power source for a long. The reliability and performance of micro batteries make them attractive for applications in implantable devices such as neural stimulators, pacemakers, and defibrillators. Other devices such as pacemakers, drug delivery systems, medical patches, medical diagnosis sensors, and disposable medical devices can also use advanced batteries such as flexible and thin batteries. The micro

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battery's size and flexibility perfectly comply with these medical devices' requirements. For instance, button batteries are being used widely in several medical applications, including various medical devices such as hearing aids, insulin pumps, nebulizers, blood glucose meters, and more.

"The market in North America is expected to grow at a significant CAGR during the forecast period"

The advancements in the packaging industry of North America are leading to the integration of interactive displays, RFID tags, and smart labels in packages. Such smart packages require thin-film batteries, increasing demand in the region. Thus, the growth of the smart packaging market in North America is expected to drive the micro battery market during the forecast period. The micro battery is an efficient power storage technology that reduces the form factor and offers a flexible design for consumer electronics. Smart card technology is widely used to avoid fraudulent transactions. Banks, telecom industries, and high-security government departments are implementing smart card technology for personnel identification and resource tracking. As a result, the demand for thin-film and printed batteries is expected to increase significantly during the forecast period.

Breakdown of the profiles of primary participants:

- By Company Type: Tier 1 - 35%, Tier 2 - 45%, and Tier 3 - 20%

- By Designation: C-level Executives - 35%, Directors - 25%, and Others - 40%

- By Region: North America - 45%, Europe - 20%, Asia Pacific - 30%, and RoW - 5%

Major players profiled in this report are as follows: Cymbet Corporation (US), Enfucell (Finland), Ultralife Corporation (US), Molex, LLC (US), Panasonic Holdings Corporation (Japan), Murata Manufacturing Co., Ltd. (Japan), TDK Corporation (Japan), Maxell, Ltd. (Japan), VARTA AG (Germany), Renata SA (Switzerland), and Duracell Inc. (US) among others.

Research Coverage

In this report, the micro battery market has been segmented based on type, material, capacity, battery type, application, and region. The micro battery market based on type has been segmented into thin film, printed, solid-state chip, and button batteries. Based on capacity, the market has been segmented into below 10 mAh, 10 to 100 mAh, and above 100 mAh. The market has been segmented into primary and secondary based on battery type. Based on application, the market has been segmented into consumer electronics, medical devices, wireless sensors, smart packaging, smart cards, and others. The study also forecasts the market size in four main regions-North America, Europe, Asia Pacific, and RoW.

Key Benefits of Buying the Report:

The report provides insights on the following pointers:

□ Analysis of key drivers (Benefits of micro batteries over traditional batteries, Rising adoption of micro batteries in electronic and medical devices, Rising use of wearable devices, Miniaturization of electronic devices), restraints (High investment costs, Lack of standards), opportunities (Rising micro battery's integration in smart textiles, Growing use of wireless sensors equipped with micro batteries), and challenges (Complexities in battery fabrication) influencing the growth of the micro battery market

□ Product Development/Innovation: Detailed insights on upcoming products, technologies, research & development activities, funding activities, industry partnerships, and new product launches in the micro battery market

□ Market Development: Comprehensive information about lucrative markets - the report analyses the micro battery market across regions such as North America, Europe, Asia Pacific, Middle East & Africa, and South America.

□ Market Diversification: Exhaustive information about new products & technologies, untapped geographies, recent developments, and investments in the micro battery market

□ Competitive Assessment: In-depth assessment of market ranks, growth strategies, and product offerings of leading players like Cymbet Corporation (US), Enfucell (Finland), Ultralife Corporation (US), Molex, LLC (US), Panasonic Holdings Corporation (Japan), Murata Manufacturing Co., Ltd. (Japan), and TDK Corporation (Japan), among others in the micro battery market

□ Strategies: The report also helps stakeholders understand the pulse of the micro battery market and provides them with information on key market drivers, restraints, challenges, and opportunities

Table of Contents:

1 INTRODUCTION 28

1.1 STUDY OBJECTIVES 28

1.2 MARKET DEFINITION 28

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1.2.1	INCLUSIONS AND EXCLUSIONS	29
1.3	STUDY SCOPE	30
1.3.1	MARKETS COVERED	30
FIGURE 1	MICRO BATTERY MARKET SEGMENTATION	30
1.3.2	REGIONAL SCOPE	30
FIGURE 2	MICRO BATTERY MARKET: REGIONAL SCOPE	30
1.3.3	YEARS CONSIDERED	31
1.4	CURRENCY CONSIDERED	31
1.5	LIMITATIONS	31
1.6	STAKEHOLDERS	32
1.7	SUMMARY OF CHANGES	32
1.8	RECESSION IMPACT	33
2	RESEARCH METHODOLOGY	34
2.1	RESEARCH APPROACH	34
FIGURE 3	MICRO BATTERY MARKET: RESEARCH DESIGN	34
2.1.1	SECONDARY AND PRIMARY RESEARCH	35
FIGURE 4	MICRO BATTERY MARKET: RESEARCH APPROACH	35
2.1.2	SECONDARY DATA	36
2.1.2.1	List of major secondary sources	36
2.1.2.2	Key data from secondary sources	36
2.1.3	PRIMARY DATA	37
2.1.3.1	Primary interviews with experts	37
2.1.3.2	Key data from primary sources	37
2.1.3.3	Key industry insights	38
2.1.3.4	Breakdown of primaries	38
2.2	MARKET SIZE ESTIMATION	39
2.2.1	BOTTOM-UP APPROACH	39
2.2.1.1	Approach to derive market size using bottom-up analysis	39
FIGURE 5	MICRO BATTERY MARKET: BOTTOM-UP APPROACH	40
2.2.2	TOP-DOWN APPROACH	40
2.2.2.1	Approach to derive market size using top-down analysis	40
FIGURE 6	MICRO BATTERY MARKET: TOP-DOWN APPROACH	41
FIGURE 7	MARKET SIZE ESTIMATION METHODOLOGY FOR MICRO BATTERY MARKET: SUPPLY-SIDE ANALYSIS	41
?		
2.3	MARKET BREAKDOWN AND DATA TRIANGULATION	42
FIGURE 8	DATA TRIANGULATION	42
2.4	RESEARCH ASSUMPTIONS	43
FIGURE 9	ASSUMPTIONS	43
2.5	PARAMETERS CONSIDERED TO UNDERSTAND RECESSION IMPACT ON MICRO BATTERY MARKET	44
2.6	RISK ASSESSMENT	44
TABLE 1	RISK ASSESSMENT	44
3	EXECUTIVE SUMMARY	45
FIGURE 10	MICRO BATTERY MARKET, 2019-2028 (USD MILLION)	45
FIGURE 11	THIN FILM BATTERIES TO WITNESS HIGHEST CAGR FROM 2023 TO 2028	46
FIGURE 12	PRIMARY BATTERIES TO HOLD LARGER MARKET SHARE DURING FORECAST PERIOD	46
FIGURE 13	10 TO 100 MAH SEGMENT TO EXHIBIT HIGHEST CAGR FROM 2023 TO 2028	47
FIGURE 14	CONSUMER ELECTRONICS APPLICATION TO CAPTURE LARGEST MARKET SHARE THROUGHOUT FORECAST PERIOD	47

FIGURE 15	ASIA PACIFIC TO EXHIBIT HIGHEST CAGR FROM 2023 TO 2028	48
4	PREMIUM INSIGHTS	49
4.1	ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN MICRO BATTERY MARKET	49
FIGURE 16	INTEGRATION OF THIN FILM AND FLEXIBLE BATTERIES INTO CONSUMER ELECTRONICS TO DRIVE MARKET	49
4.2	MICRO BATTERY MARKET, BY TYPE	49
FIGURE 17	THIN FILM BATTERIES TO CAPTURE LARGEST MARKET SHARE IN 2028	49
4.3	MICRO BATTERY MARKET, BY APPLICATION	50
FIGURE 18	CONSUMER ELECTRONICS APPLICATION TO DOMINATE MARKET THROUGHOUT FORECAST PERIOD	50
4.4	NORTH AMERICA MICRO BATTERY MARKET, BY APPLICATION AND COUNTRY	50
FIGURE 19	MEDICAL DEVICES AND US TO BE LARGEST SHAREHOLDERS OF NORTH AMERICAN MARKET IN 2028	50
4.5	MICRO BATTERY MARKET, BY COUNTRY	51
FIGURE 20	GERMANY TO BE FASTEST-GROWING MARKET FROM 2023 TO 2028	51
5	MARKET OVERVIEW	52
5.1	INTRODUCTION	52
5.2	MARKET DYNAMICS	52
FIGURE 21	MICRO BATTERY MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES	52
5.2.1	DRIVERS	53
5.2.1.1	Advantages of micro batteries over traditional batteries	53
5.2.1.2	Growing adoption of micro batteries in medical devices	53
5.2.1.3	Increasing demand for wearables using thin and printed batteries	53
5.2.1.4	Growing adoption of specialized batteries in IoT applications	54
5.2.1.5	Rising focus on miniaturization of electronic devices	54
FIGURE 22	MICRO BATTERY MARKET: IMPACT ANALYSIS OF DRIVERS	54
5.2.2	RESTRAINTS	55
5.2.2.1	Requirement for high initial investment in creating manufacturing setup for advanced batteries	55
5.2.2.2	Lack of designing and manufacturing standards for micro batteries	55
FIGURE 23	MICRO BATTERY MARKET: IMPACT ANALYSIS OF RESTRAINTS	55
5.2.3	OPPORTUNITIES	56
5.2.3.1	Rising demand for flexible batteries in smart textiles	56
5.2.3.2	Increasing adoption of wireless sensors	56
FIGURE 24	MICRO BATTERY MARKET: IMPACT ANALYSIS OF OPPORTUNITIES	56
5.2.4	CHALLENGES	57
5.2.4.1	Complex battery fabrication process	57
FIGURE 25	MICRO BATTERY MARKET: IMPACT ANALYSIS OF CHALLENGES	57
5.3	VALUE CHAIN ANALYSIS	57
FIGURE 26	MICRO BATTERY MARKET: VALUE CHAIN ANALYSIS	57
5.4	ECOSYSTEM MAPPING	59
FIGURE 27	MICRO BATTERY MARKET: ECOSYSTEM ANALYSIS	59
TABLE 2	ROLE OF PLAYERS IN MICRO BATTERY ECOSYSTEM	60
5.5	PRICING ANALYSIS	61
5.5.1	AVERAGE SELLING PRICE TREND	61
FIGURE 28	AVERAGE SELLING PRICE TREND FOR MICRO BATTERIES, 2022-2028	61
5.5.2	AVERAGE SELLING PRICE TREND, BY TYPE	62
TABLE 3	MICRO BATTERY MARKET: AVERAGE SELLING PRICE AND VOLUME	62
5.5.3	AVERAGE SELLING PRICE TREND, BY KEY PLAYER	62
FIGURE 29	AVERAGE SELLING PRICE OF MICRO BATTERIES OFFERED BY KEY PLAYERS	62
TABLE 4	AVERAGE SELLING PRICE OF MICRO BATTERIES OFFERED BY MAJOR PLAYERS (USD)	62

5.5.4	AVERAGE SELLING PRICE TREND, BY REGION	63
TABLE 5	AVERAGE SELLING PRICE FOR MICRO BATTERIES, BY REGION (USD)	63
5.6	TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS	63
FIGURE 30	REVENUE SHIFT AND NEW REVENUE POCKETS FOR PLAYERS IN MICRO BATTERY MARKET	63
5.7	TECHNOLOGY ANALYSIS	63
5.7.1	SOLID-STATE BATTERIES	64
5.7.2	METAL-AIR BATTERIES	64
5.7.3	LIQUID-METAL BATTERIES	64
5.7.4	ZINC-MANGANESE BATTERIES	64
5.7.5	VANADIUM FLOW BATTERIES	64
5.7.6	LITHIUM-SILICON BATTERIES	65
5.7.7	LITHIUM-COBALT OXIDE BATTERIES	65
5.7.8	NICKEL-MANGANESE-COBALT BATTERIES	65
5.7.9	LITHIUM-NICKEL-COBALT-ALUMINUM OXIDE BATTERIES	65
5.7.10	LITHIUM-SULFUR BATTERIES	65
5.8	PORTER'S FIVE FORCES ANALYSIS	66
TABLE 6	IMPACT OF PORTER'S FIVE FORCES ON MICRO BATTERY MARKET	66
FIGURE 31	MICRO BATTERY MARKET: PORTER'S FIVE FORCES ANALYSIS	66
5.8.1	BARGAINING POWER OF SUPPLIERS	67
5.8.2	BARGAINING POWER OF BUYERS	67
5.8.3	THREAT OF NEW ENTRANTS	67
5.8.4	THREAT OF SUBSTITUTES	67
5.8.5	INTENSITY OF COMPETITIVE RIVALRIES	67
5.9	KEY STAKEHOLDERS AND BUYING CRITERIA	68
5.9.1	KEY STAKEHOLDERS IN BUYING PROCESS	68
FIGURE 32	INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 3 APPLICATIONS	68
TABLE 7	INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 3 APPLICATIONS (%)	68
5.9.2	BUYING CRITERIA	69
FIGURE 33	KEY BUYING CRITERIA FOR TOP 3 APPLICATIONS	69
TABLE 8	KEY BUYING CRITERIA FOR TOP 3 APPLICATIONS	69
5.10	CASE STUDY ANALYSIS	69
TABLE 9	USE OF THIN FILM BATTERIES IN SPORTS APPLICATIONS	69
TABLE 10	UTILIZATION OF THIN FILM BATTERIES TO POWER SKIN PATCHES	70
TABLE 11	DEVELOPMENT OF SAFE BED-EXIT SENSORS USING THIN FILM BATTERIES	70
TABLE 12	INTEGRATION OF THIN FILM BATTERIES IN FLEXIBLE SENSOR TAGS TO TRACK SHIPMENTS	70
TABLE 13	ADOPTION OF SMALL RECHARGEABLE BATTERIES BY BITKEY TO BUILD THIN SMART LOCK KEY	70
5.11	TRADE ANALYSIS	71
FIGURE 34	IMPORT VALUE OF LITHIUM CELLS AND BATTERIES, BY COUNTRY, 2018-2022 (USD MILLION)	71
FIGURE 35	EXPORT VALUE OF LITHIUM CELLS AND BATTERIES, BY COUNTRY, 2018-2022 (USD MILLION)	71
5.12	PATENT ANALYSIS	72
FIGURE 36	TOP 10 COMPANIES WITH HIGHEST NUMBER OF PATENT APPLICATIONS IN LAST 10 YEARS	72
TABLE 14	US: TOP 20 PATENT OWNERS IN LAST 10 YEARS	72
FIGURE 37	NUMBER OF PATENTS GRANTED PER YEAR, 2013-2022	73
TABLE 15	MICRO BATTERY MARKET: LIST OF PATENTS, 2019-2022	73
5.13	KEY CONFERENCES AND EVENTS, 2023-2024	75
TABLE 16	MICRO BATTERY MARKET: DETAILED LIST OF CONFERENCES & EVENTS	75
5.14	TARIFF AND REGULATORY LANDSCAPE	76

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5.14.1	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	76
TABLE 17	NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	76
TABLE 18	EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	77
TABLE 19	ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	78
TABLE 20	ROW: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	78
5.14.2	REGULATORY STANDARDS	79
TABLE 21	STANDARDS FOR MICRO BATTERY MARKET	79
6	MICRO BATTERY MARKET, BY COMPONENT	80
6.1	INTRODUCTION	80
FIGURE 38	MICRO BATTERY MARKET, BY COMPONENT	80
6.2	ELECTRODES	80
6.2.1	CATHODE	81
6.2.1.1	Cathode material helps determine key battery characteristics	81
6.2.2	ANODE	81
6.2.2.1	Wide use of carbon-based materials in micro batteries	81
6.3	SUBSTRATES	81
6.3.1	IMPLEMENTATION OF POLYMER SUBSTRATES IN MICRO BATTERIES FOR COST EFFICIENCY	81
6.4	ELECTROLYTES	81
6.4.1	DEPLOYMENT OF SOLID ELECTROLYTES IN MICRO BATTERIES TO INCREASE BATTERY OUTPUT	81
6.5	OTHER COMPONENTS	82
7	MICRO BATTERY MARKET, BY MATERIAL	83
7.1	INTRODUCTION	83
FIGURE 39	MICRO BATTERY MARKET: BY MATERIAL	83
7.2	ALKALINE	83
7.2.1	DURABILITY AND AFFORDABILITY OF ALKALINE BATTERY TO DRIVE MARKET	83
7.3	SILVER OXIDE	84
7.3.1	HIGH ENERGY DENSITY AND STABILITY OF SILVER OXIDE BATTERIES TO BOOST DEMAND	84
7.4	LITHIUM-ION	84
7.4.1	RIISING DEMAND FOR MINIATURIZED CONSUMER ELECTRONICS AND MEDICAL DEVICES TO BOOST ADOPTION OF LITHIUM-ION BATTERIES	84
7.5	LITHIUM POLYMER	85
7.5.1	HIGH DURABILITY OF LITHIUM POLYMER BATTERIES TO INCREASE ADOPTION IN CONSUMER DEVICES	85
7.6	ZINC	85
7.6.1	NEXT-GENERATION WEARABLE ELECTRONICS TO ADOPT ZINC-BASED FLEXIBLE PRINTED BATTERIES	85
8	MICRO BATTERY MARKET, BY TYPE	86
8.1	INTRODUCTION	87
FIGURE 40	MICRO BATTERY MARKET, BY TYPE	87
FIGURE 41	THIN FILM BATTERIES TO EXHIBIT HIGHEST CAGR IN MICRO BATTERY MARKET DURING FORECAST PERIOD	87
TABLE 22	MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	88
TABLE 23	MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	88
8.2	THIN FILM BATTERIES	89
8.2.1	INCREASED DEMAND FOR MINIATURE PRODUCTS TO BOOST ADOPTION OF THIN FILM BATTERIES	89
TABLE 24	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)	89
TABLE 25	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)	90
TABLE 26	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	90
TABLE 27	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	90

TABLE 28	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	91
TABLE 29	THIN FILM BATTERIES: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	91
8.3	PRINTED BATTERIES	91
8.3.1	FLEXIBLE AND ECO-FRIENDLY FEATURES TO DRIVE DEMAND FOR PRINTED BATTERIES	91
TABLE 30	PRINTED BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)	92
TABLE 31	PRINTED BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)	92
TABLE 32	PRINTED BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	92
TABLE 33	PRINTED BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	93
TABLE 34	PRINTED BATTERIES: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	93
TABLE 35	PRINTED BATTERIES: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	93
8.4	SOLID-STATE CHIP BATTERIES	94
8.4.1	SAFETY CONCERNS IN DEVICES TO BOOST ADOPTION OF SOLID-STATE CHIP BATTERIES	94
TABLE 36	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)	94
TABLE 37	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)	94
TABLE 38	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	95
TABLE 39	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	95
TABLE 40	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	95
TABLE 41	SOLID-STATE CHIP BATTERIES: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	96
8.5	BUTTON BATTERIES	96
8.5.1	INEXPENSIVE AND SAFE NATURE OF BUTTON BATTERIES TO DRIVE DEMAND IN NUMEROUS APPLICATIONS	96
TABLE 42	BUTTON BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)	96
TABLE 43	BUTTON BATTERIES: MICRO BATTERY MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)	97
TABLE 44	BUTTON BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	97
TABLE 45	BUTTON BATTERIES: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	97
TABLE 46	BUTTON BATTERIES: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	98
TABLE 47	BUTTON BATTERIES: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	98
9	MICRO BATTERY MARKET, BY BATTERY TYPE	99
9.1	INTRODUCTION	100
FIGURE 42	MICRO BATTERY MARKET, BY BATTERY TYPE	100
FIGURE 43	SECONDARY BATTERY TO RECORD HIGHER CAGR DURING FORECAST PERIOD	100
TABLE 48	MICRO BATTERY MARKET, BY BATTERY TYPE, 2019-2022 (USD MILLION)	101
TABLE 49	MICRO BATTERY MARKET, BY BATTERY TYPE, 2023-2028 (USD MILLION)	101
9.2	PRIMARY	101
9.2.1	USE OF DISPOSABLE BATTERIES IN MEDICAL DEVICES TO DRIVE DEMAND FOR PRIMARY BATTERIES	101
TABLE 50	PRIMARY: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	102
TABLE 51	PRIMARY: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	102
9.3	SECONDARY	103
9.3.1	USE OF COMPACT AND FLEXIBLE RECHARGEABLE BATTERIES TO DRIVE SEGMENTAL GROWTH	103
TABLE 52	SECONDARY: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	103
TABLE 53	SECONDARY: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	103
10	MICRO BATTERY MARKET, BY CAPACITY	105
10.1	INTRODUCTION	106
FIGURE 44	MICRO BATTERY MARKET: BY CAPACITY	106
FIGURE 45	10 TO 100 MAH SEGMENT TO WITNESS HIGHEST CAGR DURING FORECAST PERIOD	106
TABLE 54	MICRO BATTERY MARKET, BY CAPACITY, 2019-2022 (USD MILLION)	107
TABLE 55	MICRO BATTERY MARKET, BY CAPACITY, 2023-2028 (USD MILLION)	107
?		

10.2	BELOW 10 MAH	107
10.2.1	DEMAND FOR LIGHTWEIGHT AND COMPACT BATTERIES TO BOOST ADOPTION OF BATTERIES BELOW 10 MAH	107
10.3	10 TO 100 MAH	108
10.3.1	INCREASED ADOPTION OF PORTABLE DEVICES TO DRIVE DEMAND FOR MODERATE CAPACITY BATTERIES	108
10.4	ABOVE 100 MAH	108
10.4.1	HIGH POWER APPLICATIONS TO DRIVE DEMAND FOR BATTERIES ABOVE 100 MAH	108
11	MICRO BATTERY MARKET, BY APPLICATION	109
11.1	INTRODUCTION	110
	FIGURE 46 MICRO BATTERY MARKET, BY APPLICATION	110
	FIGURE 47 SMART PACKAGING SEGMENT TO REGISTER HIGHEST CAGR FROM 2023 TO 2028	110
	TABLE 56 MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	111
	TABLE 57 MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	111
11.2	CONSUMER ELECTRONICS	112
11.2.1	MINIATURIZATION OF ELECTRONIC PRODUCTS TO DRIVE DEMAND FOR MICRO BATTERIES	112
	TABLE 58 CONSUMER ELECTRONICS: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	112
	TABLE 59 CONSUMER ELECTRONICS: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	113
	TABLE 60 CONSUMER ELECTRONICS: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	113
	TABLE 61 CONSUMER ELECTRONICS: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	113
11.3	MEDICAL DEVICES	114
11.3.1	TECHNOLOGICAL ADVANCEMENTS IN MEDICAL INDUSTRY TO BOOST ADOPTION OF MICRO BATTERIES	114
	TABLE 62 MEDICAL DEVICES: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	114
	TABLE 63 MEDICAL DEVICES: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	114
	TABLE 64 MEDICAL DEVICES: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	115
	TABLE 65 MEDICAL DEVICES: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	115
11.4	SMART PACKAGING	115
11.4.1	ADOPTION OF RFID TAGS TO DRIVE DEMAND FOR MICRO BATTERIES IN SMART PACKAGING INDUSTRY	115
	TABLE 66 SMART PACKAGING: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	116
	TABLE 67 SMART PACKAGING: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	116
	TABLE 68 SMART PACKAGING: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	116
	TABLE 69 SMART PACKAGING: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	117
11.5	SMART CARDS	117
11.5.1	RIISING DEMAND FOR SELF-POWERED SMART CARDS TO BOOST ADOPTION OF THIN FILM BATTERIES	117
	TABLE 70 SMART CARDS: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	118
	TABLE 71 SMART CARDS: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	118
	TABLE 72 SMART CARDS: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	118
	TABLE 73 SMART CARDS: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	119
11.6	WIRELESS SENSORS	119
11.6.1	LONG SHELF LIFE OF MICRO BATTERIES TO INCREASE SUITABILITY FOR WIRELESS SENSORS	119
	TABLE 74 WIRELESS SENSORS: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	120
	TABLE 75 WIRELESS SENSORS: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	120
	TABLE 76 WIRELESS SENSORS: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	120
	TABLE 77 WIRELESS SENSORS: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	121
11.7	OTHERS	121
	TABLE 78 OTHERS: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	121
	TABLE 79 OTHERS: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	122
	TABLE 80 OTHERS: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	122
	TABLE 81 OTHERS: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	122

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12	MICRO BATTERY MARKET, BY REGION	123
12.1	INTRODUCTION	124
FIGURE 48	MICRO BATTERY MARKET, BY REGION	124
FIGURE 49	GERMANY TO BE FASTEST-GROWING COUNTRY IN GLOBAL MICRO BATTERY MARKET FROM 2023 TO 2028	125
TABLE 82	MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	125
TABLE 83	MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	126
12.2	NORTH AMERICA	126
12.2.1	IMPACT OF RECESSION ON MARKET IN NORTH AMERICA	126
FIGURE 50	NORTH AMERICA: MICRO BATTERY MARKET SNAPSHOT	127
FIGURE 51	US TO ACCOUNT FOR LARGEST SHARE OF MICRO BATTERY MARKET IN NORTH AMERICA FROM 2023 TO 2028	127
TABLE 84	NORTH AMERICA: MICRO BATTERY MARKET, BY COUNTRY, 2019-2022 (USD MILLION)	128
TABLE 85	NORTH AMERICA: MICRO BATTERY MARKET, BY COUNTRY, 2023-2028 (USD MILLION)	128
TABLE 86	NORTH AMERICA: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	128
TABLE 87	NORTH AMERICA: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	128
TABLE 88	NORTH AMERICA: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	129
TABLE 89	NORTH AMERICA: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	129
12.2.2	US	129
12.2.2.1	Rising adoption of smart packaging solutions to increase demand for micro batteries	129
12.2.3	CANADA	130
12.2.3.1	Adoption of IoT technology in medical sector to fuel demand for micro batteries	130
12.2.4	MEXICO	130
12.2.4.1	Growth of consumer electronics sector to support market growth	130
12.3	EUROPE	131
12.3.1	IMPACT OF RECESSION ON MARKET IN EUROPE	131
FIGURE 52	EUROPE: MICRO BATTERY MARKET SNAPSHOT	132
FIGURE 53	GERMANY TO DOMINATE EUROPEAN MARKET FOR MICRO BATTERIES DURING FORECAST PERIOD	133
TABLE 90	EUROPE: MICRO BATTERY MARKET, BY COUNTRY, 2019-2022 (USD MILLION)	133
TABLE 91	EUROPE: MICRO BATTERY MARKET, BY COUNTRY, 2023-2028 (USD MILLION)	133
TABLE 92	EUROPE: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	134
TABLE 93	EUROPE: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	134
TABLE 94	EUROPE: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	134
TABLE 95	EUROPE: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	135
12.3.2	GERMANY	135
12.3.2.1	Increasing investments in R&D of advanced battery technologies to drive market	135
12.3.3	UK	135
12.3.3.1	Growing demand for wearable devices to drive adoption of micro batteries	135
12.3.4	FRANCE	136
12.3.4.1	Rising adoption of smart cards to drive demand for thin film and printed batteries	136
12.3.5	REST OF EUROPE	136
?		
12.4	ASIA PACIFIC	137
12.4.1	IMPACT OF RECESSION ON MARKET IN ASIA PACIFIC	137
FIGURE 54	ASIA PACIFIC: MICRO BATTERY MARKET SNAPSHOT	138
FIGURE 55	CHINA TO ACCOUNT FOR LARGEST SHARE OF ASIA PACIFIC MARKET FROM 2023 TO 2028	139
TABLE 96	ASIA PACIFIC: MICRO BATTERY MARKET, BY COUNTRY, 2019-2022 (USD MILLION)	139
TABLE 97	ASIA PACIFIC: MICRO BATTERY MARKET, BY COUNTRY, 2023-2028 (USD MILLION)	139
TABLE 98	ASIA PACIFIC: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	140

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TABLE 99	ASIA PACIFIC: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	140
TABLE 100	ASIA PACIFIC: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	140
TABLE 101	ASIA PACIFIC: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	141
12.4.2	CHINA	141
12.4.2.1	Strong manufacturing capabilities to drive demand for micro batteries	141
12.4.3	JAPAN	141
12.4.3.1	Presence of major consumer electronics manufacturers to drive market	141
12.4.4	INDIA	142
12.4.4.1	Rising trend of digitalization and infrastructural development to drive demand for micro batteries	142
12.4.5	REST OF ASIA PACIFIC	142
12.5	ROW	142
12.5.1	IMPACT OF RECESSION ON MARKET IN ROW	142
FIGURE 56	MIDDLE EAST AND AFRICA TO REGISTER HIGHER CAGR IN MICRO BATTERY MARKET IN ROW DURING FORECAST PERIOD	143
TABLE 102	ROW: MICRO BATTERY MARKET, BY REGION, 2019-2022 (USD MILLION)	143
TABLE 103	ROW: MICRO BATTERY MARKET, BY REGION, 2023-2028 (USD MILLION)	143
TABLE 104	ROW: MICRO BATTERY MARKET, BY TYPE, 2019-2022 (USD MILLION)	144
TABLE 105	ROW: MICRO BATTERY MARKET, BY TYPE, 2023-2028 (USD MILLION)	144
TABLE 106	ROW: MICRO BATTERY MARKET, BY APPLICATION, 2019-2022 (USD MILLION)	144
TABLE 107	ROW: MICRO BATTERY MARKET, BY APPLICATION, 2023-2028 (USD MILLION)	145
12.5.2	MIDDLE EAST & AFRICA	145
12.5.2.1	Rising demand for consumer electronics to support market growth	145
12.5.3	SOUTH AMERICA	145
12.5.3.1	Increasing foreign investments for infrastructure development to result in high adoption of micro batteries	145
13	COMPETITIVE LANDSCAPE	146
13.1	INTRODUCTION	146
13.2	STRATEGIES ADOPTED BY MAJOR PLAYERS	146
TABLE 108	OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS	146
13.3	REVENUE ANALYSIS FOR TOP 5 COMPANIES	148
FIGURE 57	MICRO BATTERY MARKET: REVENUE ANALYSIS FOR TOP 5 PLAYERS, 2018-2022	148
13.4	MARKET SHARE ANALYSIS, 2022	148
TABLE 109	MICRO BATTERY MARKET SHARE ANALYSIS (2022)	149
FIGURE 58	SHARE OF KEY PLAYERS IN MICRO BATTERY MARKET, 2022	149
13.5	COMPANY EVALUATION MATRIX, 2022	151
13.5.1	STARS	151
13.5.2	EMERGING LEADERS	151
13.5.3	PERVASIVE PLAYERS	151
13.5.4	PARTICIPANTS	151
FIGURE 59	MICRO BATTERY MARKET: COMPANY EVALUATION MATRIX, 2022	152
13.6	COMPANY EVALUATION MATRIX FOR SMES, 2022	152
13.6.1	PROGRESSIVE COMPANIES	152
13.6.2	RESPONSIVE COMPANIES	152
13.6.3	DYNAMIC COMPANIES	153
13.6.4	STARTING BLOCKS	153

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FIGURE 60	MICRO BATTERY MARKET: COMPANY EVALUATION MATRIX FOR SMES, 2022	153
13.7	MICRO BATTERY MARKET: COMPANY FOOTPRINT	154
TABLE 110	COMPANY FOOTPRINT	154
TABLE 111	APPLICATION: COMPANY FOOTPRINT	155
TABLE 112	REGION: COMPANY FOOTPRINT	156
13.8	COMPETITIVE BENCHMARKING	157
TABLE 113	MICRO BATTERY MARKET: LIST OF KEY STARTUPS/SMES	157
TABLE 114	MICRO BATTERY MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES	158
13.9	COMPETITIVE SITUATIONS AND TRENDS	158
TABLE 115	MICRO BATTERY MARKET: PRODUCT LAUNCHES	158
TABLE 116	MICRO BATTERY MARKET: DEALS	160
14	COMPANY PROFILES	162
	(Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats))*	
14.1	KEY PLAYERS	162
14.1.1	PANASONIC HOLDINGS CORPORATION	162
TABLE 117	PANASONIC HOLDINGS CORPORATION: COMPANY OVERVIEW	162
FIGURE 61	PANASONIC HOLDINGS CORPORATION: COMPANY SNAPSHOT	163
TABLE 118	PANASONIC HOLDINGS CORPORATION: PRODUCTS OFFERED	163
14.1.2	ENERGIZER HOLDINGS, INC.	166
TABLE 119	ENERGIZER HOLDINGS, INC.: COMPANY OVERVIEW	166
FIGURE 62	ENERGIZER HOLDINGS, INC.: COMPANY SNAPSHOT	167
TABLE 120	ENERGIZER HOLDINGS, INC.: PRODUCTS OFFERED	167
14.1.3	VARTA AG	169
TABLE 121	VARTA AG: COMPANY OVERVIEW	169
FIGURE 63	VARTA AG: COMPANY SNAPSHOT	170
TABLE 122	VARTA AG: PRODUCTS OFFERED	170
TABLE 123	VARTA AG: PRODUCT LAUNCHES	171
TABLE 124	VARTA AG: DEALS	171
TABLE 125	VARTA AG: OTHERS	172
14.1.4	ULTRALIFE CORPORATION	173
TABLE 126	ULTRALIFE CORPORATION: COMPANY OVERVIEW	173
FIGURE 64	ULTRALIFE CORPORATION: COMPANY SNAPSHOT	174
TABLE 127	ULTRALIFE CORPORATION: PRODUCTS OFFERED	174
TABLE 128	ULTRALIFE CORPORATION: DEALS	175
14.1.5	MOLEX, LLC	176
TABLE 129	MOLEX, LLC: COMPANY OVERVIEW	176
TABLE 130	MOLEX, LLC: PRODUCTS OFFERED	176
14.1.6	ENFUCELL	178
TABLE 131	ENFUCELL: COMPANY OVERVIEW	178
TABLE 132	ENFUCELL: PRODUCTS OFFERED	178
TABLE 133	ENFUCELL: PRODUCT LAUNCHES	179
14.1.7	CYMBET CORPORATION	180
TABLE 134	CYMBET CORPORATION: COMPANY OVERVIEW	180
TABLE 135	CYMBET CORPORATION: PRODUCTS OFFERED	180
TABLE 136	CYMBET CORPORATION: PRODUCT LAUNCHES	181
TABLE 137	CYMBET CORPORATION: DEALS	181

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14.1.8 DURACELL INC. 182

TABLE 138 DURACELL INC.: COMPANY OVERVIEW 182

TABLE 139 DURACELL INC.: PRODUCTS OFFERED 182

14.1.9 MAXELL, LTD. 183

TABLE 140 MAXELL, LTD.: COMPANY OVERVIEW 183

FIGURE 65 MAXELL, LTD.: COMPANY SNAPSHOT 184

TABLE 141 MAXELL, LTD.: PRODUCTS OFFERED 184

TABLE 142 MAXELL, LTD.: PRODUCT LAUNCHES 186

14.1.10 MURATA MANUFACTURING CO., LTD. 187

TABLE 143 MURATA MANUFACTURING CO., LTD.: COMPANY OVERVIEW 187

FIGURE 66 MURATA MANUFACTURING CO., LTD.: COMPANY SNAPSHOT 188

TABLE 144 MURATA MANUFACTURING CO., LTD.: PRODUCTS OFFERED 188

TABLE 145 MURATA MANUFACTURING CO., LTD.: PRODUCT LAUNCHES 189

14.1.11 RENATA SA 190

TABLE 146 RENATA SA: COMPANY OVERVIEW 190

TABLE 147 RENATA SA: PRODUCTS OFFERED 190

TABLE 148 RENATA SA: PRODUCT LAUNCHES 191

14.1.12 SEIKO INSTRUMENTS INC. 192

TABLE 149 SEIKO INSTRUMENTS INC. COMPANY OVERVIEW 192

TABLE 150 SEIKO INSTRUMENTS INC.: PRODUCTS OFFERED 192

TABLE 151 SEIKO INSTRUMENTS INC.: PRODUCT LAUNCHES 193

14.1.13 SHENZHEN GREPOW BATTERY CO., LTD. 194

TABLE 152 SHENZHEN GREPOW BATTERY CO., LTD.: COMPANY OVERVIEW 194

TABLE 153 SHENZHEN GREPOW BATTERY CO., LTD.: PRODUCTS OFFERED 194

TABLE 154 SHENZHEN GREPOW BATTERY CO., LTD.: DEALS 195

TABLE 155 SHENZHEN GREPOW BATTERY CO., LTD.: OTHERS 195

14.1.14 STMICROELECTRONICS N.V. 196

TABLE 156 STMICROELECTRONICS NV: COMPANY OVERVIEW 196

FIGURE 67 STMICROELECTRONICS N.V.: COMPANY SNAPSHOT 197

TABLE 157 STMICROELECTRONICS N.V.: PRODUCTS OFFERED 197

14.1.15 TDK CORPORATION 198

TABLE 158 TDK CORPORATION: COMPANY OVERVIEW 198

FIGURE 68 TDK CORPORATION: COMPANY SNAPSHOT 199

TABLE 159 TDK CORPORATION: PRODUCTS OFFERED 199

TABLE 160 TDK CORPORATION: PRODUCT LAUNCHES 200

14.2 OTHER COMPANIES 201

14.2.1 BRIGHTVOLT 201

14.2.2 ENERGY DIAGNOSTICS 202

14.2.3 EXCELLATRON SOLID STATE, LLC 202

14.2.4 GMB CO., LTD. 203

14.2.5 IMPRINT ENERGY 203

14.2.6 ITEN 204

14.2.7 JENAX INC. 205

14.2.8 PROLOGIUM TECHNOLOGY CO., LTD. 206

14.2.9 RIOT ENERGY 206

14.2.10 YICHANG POWER GLORY TECHNOLOGY CO., LTD. 207

*Details on Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic

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Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

15 ADJACENT AND RELATED MARKETS 208

15.1 INTRODUCTION 208

15.2 FLOW BATTERY MARKET: BY APPLICATION 208

15.2.1 INTRODUCTION 208

TABLE 161 FLOW BATTERY MARKET, BY APPLICATION, 2017-2020 (USD MILLION) 208

TABLE 162 FLOW BATTERY MARKET, BY APPLICATION, 2021-2026 (USD MILLION) 209

?

15.2.2 UTILITIES 209

15.2.2.1 Growing adoption of flow batteries in utilities to support market growth 209

15.2.3 COMMERCIAL & INDUSTRIAL 210

15.2.3.1 Commercial & industrial segment to hold significant market share during forecast period 210

15.2.4 EV CHARGING STATION 210

15.2.4.1 Growing need for fast recharging of vehicles to fuel adoption of flow batteries in charging stations 210

15.2.5 OTHERS 211

16 APPENDIX 212

16.1 INSIGHTS FROM INDUSTRY EXPERTS 212

16.2 DISCUSSION GUIDE 213

16.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 217

16.4 CUSTOMIZATION OPTIONS 219

16.5 RELATED REPORTS 219

16.6 AUTHOR DETAILS 220

Micro Battery Market by Type (Thin Film, Printed, Solid-state Chip, Button), Capacity (Below 10 mAh, 10 to 100 mAh, Above 100 mAh), Battery Type (Primary, Secondary), Application (Smart cards, Wireless Sensors) and Region - Global Forecast to 2028

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