

Millimeter Wave MMW Technology Market – Global Industry Size, Share, Trends, Opportunity, and Forecast Segmented By Product (Telecommunication Equipment, Imaging & Scanning Systems, Radar & Satellite Communication Systems), By Component (Antennas & Transceivers, Amplifiers, Oscillators, Control Devices, Frequency Converters, Passive Component), By Application (Telecommunications, Military & Defense, Automotive & Transport, Healthcare, Electronics & Semiconductor, Security), By Frequency Band (V-Band, E-Band, Others), Region, By Competition, 2018-2028

<https://marketpublishers.com/r/M177E287548EEN.html>

Date: October 2023

Pages: 185

Price: US\$ 4,900.00 (Single User License)

ID: M177E287548EEN

Abstracts

Global Millimeter Wave MMW Technology Market has experienced tremendous growth in recent years and is poised to continue its strong expansion. The Millimeter Wave MMW Technology Market reached a value of USD 2.89 billion in 2022 and is projected to maintain a compound annual growth rate of 23.01% through 2028.

The Global Millimeter Wave (MMW) Technology Market is currently in the midst of a profound transformation, driven by a relentless wave of technological advancements that are sweeping through industries worldwide. In this dynamic landscape, businesses are eagerly embracing cutting-edge technologies like Artificial Intelligence (AI), machine learning (ML), automation, and edge computing to revolutionize hardware and data workflows, ushering in groundbreaking solutions across a multitude of sectors.

One of the sectors that have witnessed significant adoption of Millimeter Wave MMW Technology is the Telecommunications and Wireless Industry. These state-of-the-art analytical tools leverage AI-driven algorithms, real-time data processing, and edge computing capabilities to revolutionize telecommunications processes and enhance network performance. Telecommunications providers and network operators are harnessing these technologies to optimize network infrastructure, reduce latency, and improve the quality of service for mobile and internet users. This results in faster data transmission, reduced downtime, and ultimately, heightened customer satisfaction.

In an era marked by the proliferation of wireless devices and the insatiable demand for high-speed connectivity, Millimeter Wave MMW Technology plays a pivotal role in boosting network efficiency and ensuring seamless communication. Leading telecom companies are leveraging these solutions to advance 5G deployment, monitor spectrum usage, and troubleshoot network issues in real time. Moreover, Millimeter Wave MMW Technology manufacturers are making substantial investments in research and development, with a strong focus on enhancing user experiences and integration with emerging technologies.

These investments are poised to unlock additional value through innovations such as dynamic spectrum sharing, AI-driven network optimization, and blockchain-based telecom data management. Importantly, these providers prioritize data security and compliance, ensuring that sensitive telecom data remains protected.

The convergence of technology and telecommunications practices presents a wealth of growth opportunities for Millimeter Wave MMW Technology providers. As these solutions continue to evolve and incorporate advanced features, they will empower telecommunications companies to operate more efficiently, deliver faster and more reliable connectivity, and enhance customer satisfaction. This will not only drive growth in the Telecommunications and Wireless Industry but also redefine how telecom processes are approached, from network optimization to ensuring network security and reliability.

In conclusion, the prospects for the Global Millimeter Wave MMW Technology Market remain exceptionally promising. The sector's rapid growth underscores its pivotal role in reshaping the Telecommunications and Wireless Industry, pushing the boundaries of efficiency, network performance, and data security. As Millimeter Wave MMW Technology continues to advance, these solutions will remain at the forefront of revolutionizing the way we approach telecommunications and network management,

ushering in a new era of faster connectivity, reduced latency, and improved customer experiences in the world of telecommunications. It is evident that the market's trajectory points towards continued innovation and relevance in the ever-evolving landscape of telecommunications and wireless technology.

Accelerated 5G Deployment and Expansion

One of the primary drivers fueling the growth of the Global Millimeter Wave (MMW) Technology Market is the accelerated deployment and expansion of 5G networks worldwide. 5G, the fifth generation of wireless technology, promises significantly higher data speeds, ultra-low latency, and enhanced network reliability. To achieve these ambitious goals, 5G networks heavily rely on MMW technology.

The demand for faster and more reliable wireless connectivity is soaring, driven by the proliferation of mobile devices, the Internet of Things (IoT), and the increasing reliance on cloud-based services. As a result, telecommunication companies and network operators are actively investing in the deployment of 5G infrastructure. Millimeter wave frequencies, which fall within the 24-100 GHz range, play a crucial role in enabling 5G networks to deliver on their promises.

Millimeter wave technology offers a wide bandwidth, allowing for the transmission of large amounts of data at extremely high speeds. It is particularly suitable for dense urban areas where network congestion is a significant concern. The deployment of small cell base stations utilizing MMW frequencies is essential for achieving the desired coverage and capacity in 5G networks.

Moreover, the growing demand for high-definition video streaming, virtual reality (VR), augmented reality (AR), and other bandwidth-intensive applications is propelling the need for 5G and, in turn, MMW technology. Consumers and businesses alike are seeking seamless and ultra-fast connectivity for various applications, from remote medical procedures to autonomous vehicles.

Furthermore, governments and regulatory bodies are actively supporting the rollout of 5G technology by allocating more spectrum for MMW frequencies and streamlining the regulatory processes. This regulatory support further accelerates the deployment of MMW technology in 5G networks.

In summary, the accelerated deployment and expansion of 5G networks worldwide is a significant driver for the Global Millimeter Wave (MMW) Technology Market. The

insatiable demand for high-speed and reliable wireless connectivity, coupled with regulatory support and industry investments, is propelling the adoption of MMW technology to enable the next generation of wireless communication.

Increasing Demand for High-Bandwidth Applications

The increasing demand for high-bandwidth applications is a key driver shaping the growth of the Global Millimeter Wave (MMW) Technology Market. In today's digital landscape, the consumption of data-intensive services and applications is on the rise, driving the need for advanced wireless technologies capable of delivering high data rates efficiently.

One of the prominent factors contributing to this demand is the proliferation of high-definition (HD) and ultra-high-definition (UHD) video streaming services. With the popularity of platforms like Netflix, YouTube, and streaming of live events, users expect seamless playback of high-quality video content on a variety of devices, from smartphones to smart TVs. This necessitates higher bandwidth capabilities, and MMW technology, with its ability to transmit large data volumes at high speeds, is well-suited to meet these requirements.

Additionally, the emergence of virtual reality (VR) and augmented reality (AR) applications is driving the need for low-latency, high-bandwidth connectivity. VR and AR technologies rely on real-time data transmission and immersive experiences, which can only be achieved through high-speed wireless connections. MMW technology plays a pivotal role in enabling these applications by providing the necessary bandwidth and low latency for a seamless user experience.

Furthermore, the Internet of Things (IoT) is contributing to the demand for high-bandwidth solutions. IoT devices, ranging from smart sensors to connected vehicles, generate vast amounts of data that need to be transmitted and processed in real time. MMW technology is instrumental in facilitating the efficient communication of IoT devices, enabling applications such as smart cities, industrial automation, and remote monitoring.

Moreover, the gaming industry is undergoing a transformation with the advent of cloud gaming services. These services require low-latency connections and high-quality graphics streaming, making MMW technology an essential enabler for cloud gaming platforms.

In summary, the increasing demand for high-bandwidth applications, including HD video streaming, VR/AR, IoT, and cloud gaming, is a significant driver propelling the adoption of MMW technology. As consumers and businesses continue to embrace data-intensive services, MMW technology's capacity to provide high-speed, low-latency wireless connectivity positions it as a critical component in meeting these evolving demands.

Advancements in Millimeter Wave Technology and Components

Advancements in Millimeter Wave (MMW) technology and its associated components are driving the growth of the Global MMW Technology Market. These advancements encompass a wide range of developments, from improved semiconductor technologies to enhanced antenna designs, which collectively enable MMW technology to become more accessible, efficient, and cost-effective.

One of the key advancements is in semiconductor technologies, particularly in the development of MMICs (Millimeter-Wave Integrated Circuits) and CMOS (Complementary Metal-Oxide-Semiconductor) technology. These advancements have led to the creation of more compact and energy-efficient MMW components, such as power amplifiers, mixers, and frequency converters. These components are essential for MMW transceivers and devices, and their miniaturization and improved performance contribute to the broader adoption of MMW technology.

Furthermore, the development of advanced antenna systems is a significant driver of MMW technology. Antennas are critical in transmitting and receiving MMW signals effectively. Innovations in phased-array antenna technology and beamforming techniques have enabled the precise control of MMW signals, allowing for improved signal quality, range, and coverage. This is particularly important in applications like 5G networks and point-to-point communication links.

Additionally, advancements in signal processing algorithms and modulation schemes have enhanced the reliability and efficiency of MMW communication systems. These developments enable MMW technology to overcome challenges such as signal attenuation due to atmospheric conditions and obstacles, making it a more viable option for various applications.

Moreover, the reduction in the cost of MMW components and equipment is a significant driver for market growth. As technology matures and economies of scale are realized, the overall cost of MMW technology decreases, making it more accessible to a broader range of industries and applications.

In summary, advancements in Millimeter Wave (MMW) technology and its associated components are driving the growth of the Global MMW Technology Market. Improved semiconductor technologies, antenna systems, signal processing algorithms, and cost reduction efforts collectively contribute to making MMW technology more efficient, reliable, and affordable. These advancements open up new opportunities for MMW technology in diverse sectors, from telecommunications to automotive and beyond.

Key Market Challenges

Evolving Regulatory Landscape and Spectrum Allocation

One of the foremost challenges facing the Global Spectrum Analyzer Market is the continuously evolving regulatory landscape and spectrum allocation policies. Spectrum, the range of radio frequencies used for wireless communication, is a finite and valuable resource. Governments and regulatory bodies around the world are responsible for managing and allocating spectrum licenses to various industries and services.

The challenge arises from the increasing demand for spectrum by a multitude of stakeholders, including telecommunications providers, government agencies, satellite operators, and emerging technologies such as IoT (Internet of Things) and 5G networks. As more services and applications require access to spectrum, regulatory bodies are under pressure to balance the allocation of spectrum resources.

The allocation of spectrum bands for emerging technologies like 5G, which operate in higher frequency ranges, requires careful planning and coordination to avoid interference and ensure efficient use of available spectrum. Additionally, the transition from legacy technologies to newer wireless standards further complicates the spectrum allocation process.

Furthermore, governments are also looking to auction off spectrum licenses to generate revenue, which can lead to bidding wars among telecom companies. These auctions can drive up the cost of spectrum licenses, posing financial challenges for service providers and potentially impacting the affordability of wireless services for consumers.

To navigate this challenge, Spectrum Analyzer manufacturers and users need to closely monitor regulatory developments and adapt their equipment and strategies to accommodate changing spectrum allocations. They must also work with regulatory bodies to ensure efficient spectrum utilization and minimize interference between

various users.

Spectrum Congestion and Interference

Spectrum congestion and interference represent significant challenges in the Global Spectrum Analyzer Market. As the demand for wireless communication services and devices continues to grow, the available spectrum is becoming increasingly crowded, leading to congestion and interference issues.

Spectrum congestion occurs when multiple wireless devices and services operate in the same frequency bands, leading to reduced network capacity and degraded service quality. This phenomenon is particularly prevalent in urban areas with high population densities and a multitude of wireless devices in operation. For example, in densely populated cities, cellular networks often struggle to meet the high data demands of users during peak hours.

Interference, on the other hand, occurs when signals from different wireless devices or services interfere with one another, degrading the quality of communication. Interference can lead to dropped calls, slow data speeds, and reduced network reliability.

The proliferation of IoT devices, which often rely on unlicensed spectrum bands, can exacerbate interference issues. Additionally, the increasing deployment of wireless technologies in industrial and critical infrastructure settings requires robust spectrum management to avoid interference that could have serious consequences.

To address these challenges, Spectrum Analyzer manufacturers must develop equipment and technologies that can effectively detect and mitigate interference. Users of Spectrum Analyzers need to conduct thorough spectrum analysis to identify sources of interference and optimize their network configurations to minimize congestion and maintain service quality.

Rapid Technological Advancements and Frequency Bands

The rapid pace of technological advancements and the emergence of new frequency bands present a challenge in the Global Spectrum Analyzer Market. As technology evolves, so do the requirements for spectrum analysis equipment. New wireless technologies, such as 5G, Wi-Fi 6, and emerging IoT standards, often operate in higher frequency bands that were less commonly used in the past.

This creates a demand for Spectrum Analyzers that can operate in these higher frequency ranges, offering wider frequency coverage and improved sensitivity. Manufacturers must keep up with these advancements by developing analyzers capable of measuring and analyzing signals in the millimeter-wave and terahertz frequency ranges. Additionally, the shift to higher frequencies poses technical challenges related to signal propagation and attenuation. Signals at higher frequencies are more susceptible to attenuation due to factors like atmospheric absorption and building penetration. As a result, Spectrum Analyzer users need to account for these challenges when designing and optimizing wireless networks. Moreover, the availability of spectrum varies by region and country, with different countries adopting different frequency bands for specific wireless services. This variability complicates the development of Spectrum Analyzers that can operate across global markets and necessitates the customization of equipment to meet local frequency band requirements.

In summary, the rapid pace of technological advancements and the emergence of new frequency bands present challenges for both Spectrum Analyzer manufacturers and users. Manufacturers must innovate to keep up with evolving technologies, while users must adapt their spectrum analysis strategies to accommodate higher frequencies and varying spectrum allocations in different regions.

Key Market Trends

5G Rollout and mmWave Technology

One of the most prominent trends in the Global Millimeter Wave (mmWave) Technology Market is the accelerating rollout of 5G networks and the pivotal role that mmWave technology plays in enabling the 5G revolution. 5G, the fifth generation of wireless technology, promises unprecedented data speeds, ultra-low latency, and massive connectivity, making it a game-changer for various industries.

Millimeter wave frequencies, which typically range from 30 GHz to 300 GHz, are a critical component of 5G networks. mmWave spectrum offers significantly higher bandwidth compared to lower-frequency bands, allowing for the transmission of massive amounts of data at ultra-fast speeds. This is crucial for delivering the promised 5G capabilities, such as augmented and virtual reality experiences, autonomous vehicles, and the Internet of Things (IoT).

The mmWave spectrum is particularly suited for delivering high-capacity, short-range communications. However, it comes with unique challenges, including limited propagation distances and susceptibility to environmental obstacles like buildings and foliage. To address these challenges, mmWave technology is evolving rapidly, with innovations in antenna design, beamforming, and signal processing. This trend is driving the demand for mmWave technology in both infrastructure and device markets, creating opportunities for manufacturers and service providers.

Automotive Radar and Sensing Applications

Another significant trend in the mmWave Technology Market is the growing adoption of millimeter wave radar and sensing applications in the automotive industry. mmWave radar, operating in the 77-81 GHz range, is being employed for advanced driver assistance systems (ADAS) and autonomous driving technologies.

mmWave radar offers several advantages for automotive applications, including high-resolution object detection, accurate distance measurement, and robust performance in various weather conditions. ADAS features such as adaptive cruise control, blind-spot detection, and collision avoidance systems rely on mmWave radar to enhance vehicle safety and improve driver assistance capabilities.

Furthermore, as the automotive industry moves closer to fully autonomous vehicles, the demand for mmWave radar is expected to increase significantly. These radar systems play a critical role in perception and decision-making for self-driving cars, enabling them to navigate complex urban environments and respond to dynamic traffic situations.

In addition to ADAS and autonomous driving, mmWave technology is also finding applications in vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication systems, further driving the adoption of mmWave radar and sensing solutions in the automotive sector.

Consumer Electronics and High-Speed Connectivity

The third notable trend in the Global mmWave Technology Market is its integration into consumer electronics and the pursuit of high-speed connectivity for a wide range of devices. As consumer demand for faster data speeds and seamless connectivity grows, mmWave technology is becoming increasingly relevant for smartphones, laptops, and other personal devices.

Consumer electronics manufacturers are exploring the use of mmWave spectrum, primarily in the 24 GHz and 60 GHz bands, to deliver multi-gigabit-per-second wireless connections. This enables users to download large files, stream high-definition content, and engage in online gaming with minimal latency.

One of the prominent applications of mmWave in consumer electronics is WiGig (Wireless Gigabit) technology, based on the IEEE 802.11ad and 802.11ay standards. WiGig enables short-range, high-speed wireless communication between devices, making it suitable for applications like wireless docking stations, virtual reality headsets, and high-resolution video streaming.

Furthermore, mmWave technology is poised to play a crucial role in the development of next-generation Wi-Fi standards, such as Wi-Fi 6E, which extends into the 6 GHz band. These standards aim to deliver enhanced connectivity and network capacity, further driving the demand for mmWave components and solutions in the consumer electronics market.

In conclusion, the Global Millimeter Wave (mmWave) Technology Market is witnessing several noteworthy trends, including its integral role in 5G networks, the proliferation of mmWave radar in automotive applications, and its integration into consumer electronics for high-speed connectivity. These trends are reshaping industries, creating new opportunities for manufacturers, and contributing to the rapid advancement of mmWave technology.

Segmental Insights

Product Insights

Telecommunication Equipment is the dominating product segment in the global millimeter wave (MMW) technology market.

MMW technology is used in a wide range of telecommunications applications, including:

5G: MMW technology is a key enabler of 5G, providing the high speeds and low latency that are required for 5G applications such as self-driving cars and augmented reality.

Backhaul: MMW technology can be used to provide backhaul connectivity to 5G base stations and other telecommunications infrastructure.

Fixed wireless access (FWA): MMW technology can be used to provide high-speed broadband internet access to homes and businesses in areas where traditional wired infrastructure is not available or affordable.

The following are some of the key factors that are contributing to the growth of the telecommunication equipment segment in the global millimeter wave technology market:

The increasing adoption of 5G networks.

The growing demand for high-speed broadband internet access.

The increasing investments in telecommunications infrastructure.

The telecommunication equipment segment is expected to continue to dominate the global millimeter wave technology market in the coming years. This is due to the increasing adoption of 5G networks and the growing demand for high-speed broadband internet access.

Other product segments in the global millimeter wave technology market include:

Imaging & Scanning Systems: MMW technology is used in a variety of imaging and scanning systems, such as security scanners, medical imaging devices, and industrial inspection systems.

Radar & Satellite Communication Systems: MMW technology is used in a variety of radar and satellite communication systems, such as military radar systems, weather radar systems, and satellite communication terminals.

These product segments are also expected to grow in the coming years, but the telecommunication equipment segment is expected to remain the dominating segment.

The global millimeter wave technology market is expected to grow significantly in the coming years. This is due to the increasing adoption of 5G networks, the growing demand for high-speed broadband internet access, and the increasing investments in telecommunications infrastructure..

Regional Insights

North America is the dominating region in the global millimeter wave (MMW) technology

market.

North America is home to a number of leading MMW technology companies, such as Qualcomm, Intel, and Texas Instruments. These companies are developing and manufacturing a wide range of MMW technology components and devices.

North America is also a major consumer of MMW technology. MMW technology is being used in a variety of applications in North America, including 5G networks, fixed wireless access (FWA), and automotive radar.

The following are some of the key factors that are contributing to the growth of the MMW technology market in North America:

The early adoption of 5G networks in North America.

The growing demand for high-speed broadband internet access in North America.

The increasing investments in telecommunications infrastructure in North America.

The presence of leading MMW technology companies in North America.

The MMW technology market in North America is expected to continue to grow rapidly in the coming years. This is due to the increasing adoption of 5G networks and the growing demand for high-speed broadband internet access.

These regions are also expected to witness significant growth in the MMW technology market in the coming years. However, North America is expected to remain the dominating region in the global MMW technology market for the foreseeable future.

Key Market Players

SAGE Millimeter, Inc.

Rohde & Schwarz GmbH & Co. KG

Anritsu Corporation

Millitech, Inc.

NEC Corporation

Aviat Networks, Inc.

Vubiq Networks, Inc.

E-Band Communications, LLC

Teledyne Technologies Incorporated

QuinStar Technology, Inc.

Report Scope:

In this report, the Global Millimeter Wave MMW Technology Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Millimeter Wave MMW Technology Market , By Product :

Telecommunication Equipment

Imaging & Scanning Systems

Radar & Satellite Communication Systems

Millimeter Wave MMW Technology Market , By Component :

Hardware

Amplifiers

Oscillators

Control Devices

Frequency Converters

Passive Components

Others

Millimeter Wave MMW Technology Market , By Application :

Telecommunications

Military & Defense

Automotive & Transport

Healthcare

Electronics & Semiconductor

Security

Others

Millimeter Wave MMW Technology Market , By Frequency Band:

V-Band

E-Band

Other Frequency Bands

Millimeter Wave MMW Technology Market , By Region:

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

Asia-Pacific

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Kuwait

Turkey

Egypt

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Millimeter Wave MMW Technology Market .

Available Customizations:

Global Millimeter Wave MMW Technology Market report with the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. SERVICE OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Formulation of the Scope
- 2.4. Assumptions and Limitations
- 2.5. Sources of Research
 - 2.5.1. Secondary Research
 - 2.5.2. Primary Research
- 2.6. Approach for the Market Study
 - 2.6.1. The Bottom-Up Approach
 - 2.6.2. The Top-Down Approach
- 2.7. Methodology Followed for Calculation of Market Size & Market Shares
- 2.8. Forecasting Methodology
 - 2.8.1. Data Triangulation & Validation

3. EXECUTIVE SUMMARY

4. VOICE OF CUSTOMER

5. GLOBAL MILLIMETER WAVE MMW TECHNOLOGY MARKET OVERVIEW

6. GLOBAL MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Product (Telecommunication Equipment, Imaging & Scanning Systems, Radar & Satellite Communication Systems, Vector Signal Millimeter Wave MMW Technology)

6.2.2. By Component (Antennas & Transceivers Amplifiers, Oscillators, Control Devices Frequency Converters Passive Component)

6.2.3. By Application (Telecommunications, Military & Defense, Automotive & Transport, Healthcare, Electronics & Semiconductor, Security)

6.2.4. By Frequency Band (V-Band, E-Band, Others)

6.2.5. By Region

6.3. By Company (2022)

6.4. Market Map

7. NORTH AMERICA MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Product

7.2.2. By Component

7.2.3. By Application

7.2.4. By Frequency Band

7.2.5. By Country

7.3. North America: Country Analysis

7.3.1. United States Millimeter Wave MMW Technology Market Outlook

7.3.1.1. Market Size & Forecast

7.3.1.1.1. By Value

7.3.1.2. Market Share & Forecast

7.3.1.2.1. By Product

7.3.1.2.2. By Component

7.3.1.2.3. By Application

7.3.1.2.4. By Frequency Band

7.3.2. Canada Millimeter Wave MMW Technology Market Outlook

7.3.2.1. Market Size & Forecast

7.3.2.1.1. By Value

7.3.2.2. Market Share & Forecast

7.3.2.2.1. By Product

7.3.2.2.2. By Component

- 7.3.2.2.3. By Application
- 7.3.2.2.4. By Frequency Band
- 7.3.3. Mexico Millimeter Wave MMW Technology Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Product
 - 7.3.3.2.2. By Component
 - 7.3.3.2.3. By Application
 - 7.3.3.2.4. By Frequency Band

8. EUROPE MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Product
 - 8.2.2. By Component
 - 8.2.3. By Application
 - 8.2.4. By Frequency Band
 - 8.2.5. By Country
- 8.3. Europe: Country Analysis
 - 8.3.1. Germany Millimeter Wave MMW Technology Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Product
 - 8.3.1.2.2. By Component
 - 8.3.1.2.3. By Application
 - 8.3.1.2.4. By Frequency Band
 - 8.3.2. United Kingdom Millimeter Wave MMW Technology Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Product
 - 8.3.2.2.2. By Component
 - 8.3.2.2.3. By Application
 - 8.3.2.2.4. By Frequency Band
 - 8.3.3. Italy Millimeter Wave MMW Technology Market Outlook

- 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
- 8.3.3.2. Market Share & Forecasty
 - 8.3.3.2.1. By Product
 - 8.3.3.2.2. By Component
 - 8.3.3.2.3. By Application
 - 8.3.3.2.4. By Frequency Band
- 8.3.4. France Millimeter Wave MMW Technology Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Product
 - 8.3.4.2.2. By Component
 - 8.3.4.2.3. By Application
 - 8.3.4.2.4. By Frequency Band
- 8.3.5. Spain Millimeter Wave MMW Technology Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Product
 - 8.3.5.2.2. By Component
 - 8.3.5.2.3. By Application
 - 8.3.5.2.4. By Frequency Band

9. ASIA-PACIFIC MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Product
 - 9.2.2. By Component
 - 9.2.3. By Application
 - 9.2.4. By Frequency Band
 - 9.2.5. By Country
- 9.3. Asia-Pacific: Country Analysis
 - 9.3.1. China Millimeter Wave MMW Technology Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast

- 9.3.1.2.1. By Product
- 9.3.1.2.2. By Component
- 9.3.1.2.3. By Application
- 9.3.1.2.4. By Frequency Band
- 9.3.2. India Millimeter Wave MMW Technology Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Product
 - 9.3.2.2.2. By Component
 - 9.3.2.2.3. By Application
 - 9.3.2.2.4. By Frequency Band
- 9.3.3. Japan Millimeter Wave MMW Technology Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Product
 - 9.3.3.2.2. By Component
 - 9.3.3.2.3. By Application
 - 9.3.3.2.4. By Frequency Band
- 9.3.4. South Korea Millimeter Wave MMW Technology Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Product
 - 9.3.4.2.2. By Component
 - 9.3.4.2.3. By Application
 - 9.3.4.2.4. By Frequency Band
- 9.3.5. Australia Millimeter Wave MMW Technology Market Outlook
 - 9.3.5.1. Market Size & Forecast
 - 9.3.5.1.1. By Value
 - 9.3.5.2. Market Share & Forecast
 - 9.3.5.2.1. By Product
 - 9.3.5.2.2. By Component
 - 9.3.5.2.3. By Application
 - 9.3.5.2.4. By Frequency Band

10. SOUTH AMERICA MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

10.1. Market Size & Forecast

10.1.1. By Value

10.2. Market Share & Forecast

10.2.1. By Product

10.2.2. By Component

10.2.3. By Application

10.2.4. By Frequency Band

10.2.5. By Country

10.3. South America: Country Analysis

10.3.1. Brazil Millimeter Wave MMW Technology Market Outlook

10.3.1.1. Market Size & Forecast

10.3.1.1.1. By Value

10.3.1.2. Market Share & Forecast

10.3.1.2.1. By Product

10.3.1.2.2. By Component

10.3.1.2.3. By Application

10.3.1.2.4. By Frequency Band

10.3.2. Argentina Millimeter Wave MMW Technology Market Outlook

10.3.2.1. Market Size & Forecast

10.3.2.1.1. By Value

10.3.2.2. Market Share & Forecast

10.3.2.2.1. By Product

10.3.2.2.2. By Component

10.3.2.2.3. By Application

10.3.2.2.4. By Frequency Band

10.3.3. Colombia Millimeter Wave MMW Technology Market Outlook

10.3.3.1. Market Size & Forecast

10.3.3.1.1. By Value

10.3.3.2. Market Share & Forecast

10.3.3.2.1. By Product

10.3.3.2.2. By Component

10.3.3.2.3. By Application

10.3.3.2.4. By Frequency Band

11. MIDDLE EAST AND AFRICA MILLIMETER WAVE MMW TECHNOLOGY MARKET OUTLOOK

11.1. Market Size & Forecast

- 11.1.1. By Value
- 11.2. Market Share & Forecast
 - 11.2.1. By Product
 - 11.2.2. By Component
 - 11.2.3. By Application
 - 11.2.4. By Frequency Band
 - 11.2.5. By Country
- 11.3. MEA: Country Analysis
 - 11.3.1. South Africa Millimeter Wave MMW Technology Market Outlook
 - 11.3.1.1. Market Size & Forecast
 - 11.3.1.1.1. By Value
 - 11.3.1.2. Market Share & Forecast
 - 11.3.1.2.1. By Product
 - 11.3.1.2.2. By Component
 - 11.3.1.2.3. By Application
 - 11.3.1.2.4. By Frequency Band
 - 11.3.2. Saudi Arabia Millimeter Wave MMW Technology Market Outlook
 - 11.3.2.1. Market Size & Forecast
 - 11.3.2.1.1. By Value
 - 11.3.2.2. Market Share & Forecast
 - 11.3.2.2.1. By Product
 - 11.3.2.2.2. By Component
 - 11.3.2.2.3. By Application
 - 11.3.2.2.4. By Frequency Band
 - 11.3.3. UAE Millimeter Wave MMW Technology Market Outlook
 - 11.3.3.1. Market Size & Forecast
 - 11.3.3.1.1. By Value
 - 11.3.3.2. Market Share & Forecast
 - 11.3.3.2.1. By Product
 - 11.3.3.2.2. By Component
 - 11.3.3.2.3. By Application
 - 11.3.3.2.4. By Frequency Band
 - 11.3.4. Kuwait Millimeter Wave MMW Technology Market Outlook
 - 11.3.4.1. Market Size & Forecast
 - 11.3.4.1.1. By Value
 - 11.3.4.2. Market Share & Forecast
 - 11.3.4.2.1. By Product
 - 11.3.4.2.2. By Component
 - 11.3.4.2.3. By Application

- 11.3.4.2.4. By Frequency Band
- 11.3.5. Turkey Millimeter Wave MMW Technology Market Outlook
 - 11.3.5.1. Market Size & Forecast
 - 11.3.5.1.1. By Value
 - 11.3.5.2. Market Share & Forecast
 - 11.3.5.2.1. By Product
 - 11.3.5.2.2. By Component
 - 11.3.5.2.3. By Application
 - 11.3.5.2.4. By Frequency Band
- 11.3.6. Egypt Millimeter Wave MMW Technology Market Outlook
 - 11.3.6.1. Market Size & Forecast
 - 11.3.6.1.1. By Value
 - 11.3.6.2. Market Share & Forecast
 - 11.3.6.2.1. By Product
 - 11.3.6.2.2. By Component
 - 11.3.6.2.3. By Application
 - 11.3.6.2.4. By Frequency Band

12. MARKET DYNAMICS

- 12.1. Drivers
- 12.2. Challenges

13. MARKET TRENDS & DEVELOPMENTS

14. COMPANY PROFILES

- 14.1. SAGE Millimeter, Inc. .
 - 14.1.1. Business Overview
 - 14.1.2. Key Revenue and Financials
 - 14.1.3. Recent Developments
 - 14.1.4. Key Personnel/Key Contact Person
 - 14.1.5. Key Product/Service Offered
- 14.2. Rohde & Schwarz GmbH & Co. KG
 - 14.2.1. Business Overview
 - 14.2.2. Key Revenue and Financials
 - 14.2.3. Recent Developments
 - 14.2.4. Key Personnel/Key Contact Person

- 14.2.5. Key Product/ Service Offered
- 14.3. Anritsu Corporation
 - 14.3.1. Business Overview
 - 14.3.2. Key Revenue and Financials
 - 14.3.3. Recent Developments
 - 14.3.4. Key Personnel/Key Contact Person
 - 14.3.5. Key Product/ Service Offered
- 14.4. Millitech, Inc.
 - 14.4.1. Business Overview
 - 14.4.2. Key Revenue and Financials
 - 14.4.3. Recent Developments
 - 14.4.4. Key Personnel/Key Contact Person
 - 14.4.5. Key Product/ Service Offered
- 14.5. NEC Corporation
 - 14.5.1. Business Overview
 - 14.5.2. Key Revenue and Financials
 - 14.5.3. Recent Developments
 - 14.5.4. Key Personnel/Key Contact Person
 - 14.5.5. Key Product/ Service Offered
- 14.6. E-Band Communications, LLC
 - 14.6.1. Business Overview
 - 14.6.2. Key Revenue and Financials
 - 14.6.3. Recent Developments
 - 14.6.4. Key Personnel/Key Contact Person
 - 14.6.5. Key Product/ Service Offered
- 14.7. Aviat Networks, Inc.
 - 14.7.1. Business Overview
 - 14.7.2. Key Revenue and Financials
 - 14.7.3. Recent Developments
 - 14.7.4. Key Personnel/Key Contact Person
 - 14.7.5. Key Product/ Service Offered
- 14.8. Teledyne Technologies Incorporated
 - 14.8.1. Business Overview
 - 14.8.2. Key Revenue and Financials
 - 14.8.3. Recent Developments
 - 14.8.4. Key Personnel/Key Contact Person
 - 14.8.5. Key Product/ Service Offered
- 14.9. Vubiq Networks, Inc..
 - 14.9.1. Business Overview

- 14.9.2. Key Revenue and Financials
- 14.9.3. Recent Developments
- 14.9.4. Key Personnel/Key Contact Person
- 14.9.5. Key Product/ Service Offered
- 14.10. QuinStar Technology, Inc.
 - 14.10.1. Business Overview
 - 14.10.2. Key Revenue and Financials
 - 14.10.3. Recent Developments
 - 14.10.4. Key Personnel/Key Contact Person
 - 14.10.5. Key Product/ Service Offered

15. STRATEGIC RECOMMENDATIONS

16. ABOUT US & DISCLAIMER

I would like to order

Product name: Millimeter Wave MMW Technology Market – Global Industry Size, Share, Trends, Opportunity, and Forecast Segmented By Product (Telecommunication Equipment, Imaging & Scanning Systems, Radar & Satellite Communication Systems), By Component (Antennas & Transceivers, Amplifiers, Oscillators, Control Devices, Frequency Converters, Passive Component), By Application (Telecommunications, Military & Defense, Automotive & Transport, Healthcare, Electronics & Semiconductor, Security), By Frequency Band (V-Band, E-Band, Others), Region, By Competition, 2018-2028

Product link: <https://marketpublishers.com/r/M177E287548EEN.html>

Price: US\$ 4,900.00 (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/M177E287548EEN.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