

# Telecom Millimeter Wave Technology Market Trends and Analysis by Application, Vertical, and Segment Forecast to 2029

*The Business Research Company's  
Telecom Millimeter Wave Technology  
Global Market Report 2025 – Market Size,  
Trends, And Global Forecast 2025-2034*

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[/EINPresswire.com/](#) -- "What Is The  
Estimated Industry Size Of [Telecom  
Millimeter Wave Technology Market?](#)

In recent times, the market size for telecom millimeter wave technology has seen significant growth. It is projected to increase from \$2.41 billion in 2024 to \$3.13 billion in 2025, possessing a compound annual growth rate (CAGR) of 29.9%. Factors contributing to the growth during the ground-covered period include the escalating need for high-speed wireless communication, the global expansion of 5G networks, growing demand for high-capacity backhaul solutions, advancements in mmWave hardware and spectrum allocation, as well as increased utilization of fixed wireless access (FWA) solutions.

In the upcoming years, the telecom millimeter wave technology market is projected to undergo substantial expansion. Estimated to reach a size of \$8.82 billion in 2029, the market will grow at a compound annual growth rate of 29.5%. The predicted growth during the forecast period is linked to factors such as the rising implementation of mmWave technology in urban areas, mounting demand for applications necessitating ultra-low latency and high bandwidth, increased spending on telecom infrastructure by the public and private sectors, advancements in mmWave transceivers and antenna technologies, and expanding collaborations amid telecom providers and technology vendors. Key trends on the horizon involve advancements in utilizing and assigning mmWave spectrum, incorporating artificial intelligence and automation in managing networks, technological innovations related to mmWave transceivers and antenna designs, smart city and IoT applications' expansion requiring high-speed connectivity, and collaborative efforts among telecom providers and technology vendors to ameliorate mmWave capabilities.

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## What Are The Major Factors Driving The [Telecom Millimeter Wave Technology Global Market Growth](#)?

The growth of the telecom millimeter wave technology market is projected to accelerate due to the rising expansion of 5G networks. These networks, identified as the fifth generation of mobile networks, are swiftly evolving due to their capacity to offer super-fast speeds, minimal latency, and huge device connectivity, which facilitates sophisticated applications such as the Internet of Things (IoT), self-governing systems, and interactive media. An increase in the demand for high-speed, low-latency connections that support data-heavy applications like IoT, autonomous vehicles, and smart city infrastructure is causing a surge in the usage of 5G networks. Telecom millimeter wave (mmWave) technology is instrumental in equipping 5G networks with the ability to transmit substantial amounts of data over short distances, optimizing network performance and capacity in densely populated regions and underscoring uninterrupted connectivity for advanced digital applications. For example, data from 5G Americas, a research organization based in the US that focuses on wireless industry trends, indicated that by September 2025, there were over 2.6 billion 5G connections worldwide, recording a 37% increase from the previous year and are expected to hit approximately 9 billion by 2030, making up 60% of all global wireless connections. Thus, the growing expansion of 5G networks is a significant driving force for growth in the telecom millimeter wave technology market.

## Who Are The Leading Companies In The Telecom Millimeter Wave Technology Market?

Major players in the Telecom Millimeter Wave Technology Global Market Report 2025 include:

- Samsung Electronics Co. Ltd.
- Huawei Technologies Co. Ltd.
- Qualcomm Technologies Inc.
- Telefonaktiebolaget LM Ericsson
- NEC Corporation
- Nokia Corporation
- Keysight Technologies Inc.
- Smiths Group plc
- Aviat Networks Inc.
- Ceragon Networks Ltd.

## What Are The Future [Trends Of The Telecom Millimeter Wave Technology Market](#)?

Key players in the telecom millimeter wave technology market are progressing the evolution of pioneering solutions, such as small mmWave distributed antenna units (DAUs) utilizing radio-over-fiber (RoF) systems, to cater to the escalating demand for ultra-high-capacity and dependable connectivity in intricate indoor and obstacle-intensive surroundings. Compact mmWave DAUs facilitated by RoF systems are tiny, energy-saving modules that dispatch high-frequency millimeter-wave signals over optical fiber, amplifying high-capacity wireless coverage in congested or difficult-to-access zones. For example, in June 2024, NEC Corporation, an organization based in Japan that manufactures network equipment, unveiled a compact

millimeter-wave distributed antenna for Beyond 5G/6G, a creative solution established through a 1-bit RoF system for the 40 GHz band. This technology turns high-frequency analog mmWave signals into 1-bit pulse signals conveyed over fiber, making possible economical, low-power, small DAUs fit for skyscrapers, subterranean malls, factories, railway systems, and other obstacle-filled areas. Unlike conventional mmWave solutions that necessitate bulky distributed antenna units with DSP/DAC modules, this 1-bit RoF method enables simpler DAUs with universal electrical-to-optical converters and significantly diminished size, power intake, and expense.

What Are The Primary Segments Covered In The Global Telecom Millimeter Wave Technology Market Report?

The telecom millimeter wave technology market covered in this report is segmented –

- 1) By Component: Hardware, Software
- 2) By Frequency: E-Band, V-Band, Other Frequencies
- 3) By Licensing: Fully Licensed, Light-Licensed, Unlicensed
- 4) By Application: Military, Civil
- 5) By End Use: Telecom Providers, Government And Defense, Enterprises, Other End Use

Subsegment:

- 1) By Hardware: Antennas, Transceivers, Amplifiers, Oscillators, Waveguides, Connectors and Adapters, Radio Frequency (RF) Modules, Baseband Units, Modulators And Demodulators, Power Supply Units
- 2) By Software: Network Management Software, Spectrum Analysis Software, Communication And Connectivity Software, Signal Processing Software, Network Optimization Software, Security And Encryption Software, Simulation And Modeling Tools, Monitoring And Diagnostic Tools

View the full telecom millimeter wave technology market report:

<https://www.thebusinessresearchcompany.com/report/telecom-millimeter-wave-technology-global-market-report>

Which Region Is Forecasted To Grow The Fastest In The Telecom Millimeter Wave Technology Industry?

In 2024, North America led the global telecom millimeter wave technology market with the largest share. Meanwhile, the fastest projected growth is anticipated in the Asia-Pacific region. The report covers a diverse geographic spectrum, including Asia-Pacific, Western Europe, Eastern Europe, North America, South America, Middle East, and Africa.

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