

Wi-Fi HaLow Market Forecasts to 2034 – Global Analysis By Component (Chipsets, Modules, Access Points and Gateways, End Devices, Software, and Services), Frequency Band, Deployment Mode, Application, End User, and By Geography

<https://marketpublishers.com/r/W47DF33F7900EN.html>

Date: June 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: W47DF33F7900EN

Abstracts

According to Statistics MRC, the Global Wi-Fi HaLow Market is accounted for \$1.8 billion in 2026 and is expected to reach \$10.1 billion by 2034 growing at a CAGR of 24.0% during the forecast period. Wi-Fi HaLow is a low-power, long-range wireless networking protocol based on the IEEE 802.11ah standard, operating in sub-1 GHz frequency bands to provide extended range, penetration through obstacles, and low-power operation for IoT applications. The market encompasses chipsets, modules, access points and gateways, end devices, software, and services utilizing sub-1 GHz and other supported frequency bands. These solutions are deployed in on-premises, cloud-based, and hybrid modes for applications including smart home, industrial IoT, smart cities, healthcare, smart agriculture, retail and logistics, automotive, security and surveillance, and other applications. The market serves residential, commercial, industrial, government and municipalities, agriculture, healthcare, and logistics and transportation end users.

Market Dynamics:

Driver:

Growing IoT adoption and demand for long-range low-power connectivity

The increasing adoption of Internet of Things devices and the need for long-range, low-power connectivity solutions is a primary driver for the Wi-Fi HaLow market. Traditional

Wi-Fi has limited range and high power consumption, while other LPWAN technologies may lack the bandwidth for certain applications. Wi-Fi HaLow offers extended range, penetration through walls and obstacles, and low-power operation ideal for battery-powered sensors. Growing smart home, industrial IoT, and smart city deployments create demand for reliable, long-range connectivity. As IoT adoption accelerates, demand for Wi-Fi HaLow solutions expands across all applications, supporting sustained market growth.

Restraint:

Limited ecosystem maturity and awareness

The limited maturity of the Wi-Fi HaLow ecosystem and low consumer awareness compared to established technologies represent a major restraint for the market. Wi-Fi HaLow is a relatively new technology with limited product availability compared to Wi-Fi, Bluetooth, and other established protocols. Consumer and enterprise awareness of Wi-Fi HaLow benefits is limited. Device compatibility and interoperability considerations may slow adoption. These ecosystem and awareness challenges may constrain market growth, particularly in the near term.

Opportunity:

Expansion of smart city and industrial IoT applications

The growing adoption of smart city and industrial IoT applications presents significant opportunities for Wi-Fi HaLow market expansion. Smart cities require extensive sensor networks for infrastructure monitoring, environmental sensing, and public safety. Industrial IoT applications including asset tracking, predictive maintenance, and process monitoring benefit from long-range, low-power connectivity. Agriculture applications including soil monitoring and livestock tracking are emerging. As smart infrastructure deployment accelerates, Wi-Fi HaLow captures growing market share.

Threat:

Competition from other LPWAN and wireless technologies

Competition from other low-power wide-area network technologies including LoRaWAN, NB-IoT, and Zigbee poses significant threats to Wi-Fi HaLow market growth. These technologies have established ecosystems, broader device availability, and proven deployments. LoRaWAN offers similar long-range capabilities. NB-IoT benefits from cellular infrastructure. Zigbee has strong smart home presence. This competition may

limit Wi-Fi HaLow adoption, particularly where established alternatives are adequate.

Covid-19 Impact:

The COVID-19 pandemic accelerated Wi-Fi HaLow market development as IoT adoption increased across industries. Remote monitoring and automation needs grew during lockdowns. Supply chain disruptions affected component availability. However, the pandemic highlighted the importance of reliable, long-range connectivity for IoT applications. Post-pandemic, continued IoT expansion has supported market growth.

The Chipsets segment is expected to be the largest during the forecast period

The Chipsets segment is expected to account for the largest market share during the forecast period, driven by the essential role of chipsets in enabling Wi-Fi HaLow functionality in end devices. Chipsets are fundamental components required for every Wi-Fi HaLow device, from sensors to access points. The segment benefits from growing device production and decreasing chipset costs. Major semiconductor manufacturers are investing in Wi-Fi HaLow chipset development. As device adoption grows, chipsets maintain the largest component segment share.

The Industrial IoT segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the Industrial IoT segment is predicted to witness the highest growth rate, fueled by the need for reliable, long-range connectivity in industrial environments, growing adoption of industrial automation, and expanding industrial sensor deployments. Industrial IoT applications including asset tracking, predictive maintenance, and process monitoring require connectivity that penetrates through walls and operates reliably in challenging environments. Wi-Fi HaLow offers these capabilities with low power consumption. As industrial IoT adoption accelerates, this application delivers the fastest segment growth.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by early technology adoption, strong IoT ecosystem, and significant investment in smart infrastructure. The United States leads regional growth with substantial IoT deployment across industries. High awareness of connectivity

solutions drives adoption. Well-established technology ecosystem supports innovation. With early adoption and technology leadership, North America maintains its dominant market position.

Region with highest CAGR:

Over the forecast period, the Asia-Pacific region is anticipated to exhibit the highest CAGR, driven by rapid IoT adoption, smart city initiatives, and expanding industrial automation across China, Japan, South Korea, and Southeast Asia. The region's large manufacturing base creates substantial demand for industrial IoT connectivity. Government smart city programs support deployment. As IoT adoption and smart infrastructure investment accelerate, Asia Pacific delivers the fastest Wi-Fi HaLow market growth globally.

Key players in the market

Some of the key players in Wi-Fi HaLow Market include Morse Micro, Newracom, Inc., Silex Technology, Inc., Qualcomm Incorporated, MediaTek Inc., Realtek Semiconductor Corp., NXP Semiconductors N.V., Synaptics Incorporated, Microchip Technology Inc., Quectel Wireless Solutions Co., Ltd., Renesas Electronics Corporation, Texas Instruments Incorporated, Silicon Labs, Arduino S.r.l., and Seeed Technology Co., Ltd.

Key Developments:

In September 2026, Morse Micro appointed Byte Lab as its first European Wi-Fi HaLow design partner and released upgraded USB-A and USB-C long-range Wi-Fi HaLow network adapters to extend Sub-1 GHz connectivity across multiple host operating systems.

In June 2026, Seeed Technology released the commercial Wi-Fi HaLow Transceiver expansion board for its XIAO ecosystem, utilizing Quectel's FGH100M-H module to offer low-power IEEE 802.11ah Sub-1 GHz communication with WPA3 security up to 1 km.

In January 2026, Quectel introduced its SRG091X and SRG093X NXP i.MX 9-based system-on-modules at CES, integrating Wi-Fi 6, 802.15.4, and expansion capability for Quectel's Sub-1 GHz Wi-Fi HaLow modules to power edge computing and industrial gateways.

Components Covered:

Chipsets

Modules

Access Points and Gateways

End Devices

Software

Services

Frequency Bands Covered:

Sub-1 GHz

Other Supported Frequency Bands

Deployment Modes Covered:

On-Premises

Cloud-Based

Hybrid

Applications Covered:

Smart Home

Industrial IoT

Smart Cities

Healthcare

Smart Agriculture

Retail and Logistics

Automotive

Security and Surveillance

Other Applications

End Users Covered:

Residential

Commercial

Industrial

Government and Municipalities

Agriculture

Healthcare

Logistics and Transportation

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Wi-Fi HaLow Market Forecasts to 2034 – Global Analysis By Component (Chipsets, Modules, Access Points and Gate...

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL WI-FI HALOW MARKET, BY COMPONENT

- 5.1 Chipsets
- 5.2 Modules
- 5.3 Access Points and Gateways
- 5.4 End Devices
- 5.5 Software
- 5.6 Services

6 GLOBAL WI-FI HALOW MARKET, BY FREQUENCY BAND

- 6.1 Sub-1 GHz
- 6.2 Other Supported Frequency Bands

7 GLOBAL WI-FI HALOW MARKET, BY DEPLOYMENT MODE

- 7.1 On-Premises
- 7.2 Cloud-Based
- 7.3 Hybrid

8 GLOBAL WI-FI HALOW MARKET, BY APPLICATION

- 8.1 Smart Home
- 8.2 Industrial IoT
- 8.3 Smart Cities
- 8.4 Healthcare
- 8.5 Smart Agriculture
- 8.6 Retail and Logistics
- 8.7 Automotive
- 8.8 Security and Surveillance
- 8.9 Other Applications

9 GLOBAL WI-FI HALOW MARKET, BY END USER

- 9.1 Residential

- 9.2 Commercial
- 9.3 Industrial
- 9.4 Government and Municipalities
- 9.5 Agriculture
- 9.6 Healthcare
- 9.7 Logistics and Transportation

10 GLOBAL WI-FI HALOW MARKET, BY GEOGRAPHY

- 10.1 North America
 - 10.1.1 United States
 - 10.1.2 Canada
 - 10.1.3 Mexico
- 10.2 Europe
 - 10.2.1 United Kingdom
 - 10.2.2 Germany
 - 10.2.3 France
 - 10.2.4 Italy
 - 10.2.5 Spain
 - 10.2.6 Netherlands
 - 10.2.7 Belgium
 - 10.2.8 Sweden
 - 10.2.9 Switzerland
 - 10.2.10 Poland
 - 10.2.11 Rest of Europe
- 10.3 Asia Pacific
 - 10.3.1 China
 - 10.3.2 Japan
 - 10.3.3 India
 - 10.3.4 South Korea
 - 10.3.5 Australia
 - 10.3.6 Indonesia
 - 10.3.7 Thailand
 - 10.3.8 Malaysia
 - 10.3.9 Singapore
 - 10.3.10 Vietnam
 - 10.3.11 Rest of Asia Pacific
- 10.4 South America
 - 10.4.1 Brazil

- 10.4.2 Argentina
- 10.4.3 Colombia
- 10.4.4 Chile
- 10.4.5 Peru
- 10.4.6 Rest of South America
- 10.5 Rest of the World (RoW)
 - 10.5.1 Middle East
 - 10.5.1.1 Saudi Arabia
 - 10.5.1.2 United Arab Emirates
 - 10.5.1.3 Qatar
 - 10.5.1.4 Israel
 - 10.5.1.5 Rest of Middle East
 - 10.5.2 Africa
 - 10.5.2.1 South Africa
 - 10.5.2.2 Egypt
 - 10.5.2.3 Morocco
 - 10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

- 11.1 Industry Value Network and Supply Chain Assessment
- 11.2 White-Space and Opportunity Mapping
- 11.3 Product Evolution and Market Life Cycle Analysis
- 11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 12.1 Mergers and Acquisitions
- 12.2 Partnerships, Alliances, and Joint Ventures
- 12.3 New Product Launches and Certifications
- 12.4 Capacity Expansion and Investments
- 12.5 Other Strategic Initiatives

13 COMPANY PROFILES

- 13.1 Morse Micro
- 13.2 Newracom, Inc.
- 13.3 Silex Technology, Inc.
- 13.4 Qualcomm Incorporated

13.5 MediaTek Inc.

13.6 Realtek Semiconductor Corp.

13.7 NXP Semiconductors N.V.

13.8 Synaptics Incorporated

13.9 Microchip Technology Inc.

13.10 Quectel Wireless Solutions Co., Ltd.

13.11 Renesas Electronics Corporation

13.12 Texas Instruments Incorporated

13.13 Silicon Labs

13.14 Arduino S.r.l.

13.15 Seeed Technology Co., Ltd.

List of Tables

Table 1 Global Wi-Fi HaLow Market Outlook, By Region (2023–2034) (\$MN)

Table 2 Global Wi-Fi HaLow Market Outlook, By Component (2023–2034) (\$MN)

Table 3 Global Wi-Fi HaLow Market Outlook, By Chipsets (2023–2034) (\$MN)

Table 4 Global Wi-Fi HaLow Market Outlook, By Modules (2023–2034) (\$MN)

Table 5 Global Wi-Fi HaLow Market Outlook, By Access Points and Gateways (2023–2034) (\$MN)

Table 6 Global Wi-Fi HaLow Market Outlook, By End Devices (2023–2034) (\$MN)

Table 7 Global Wi-Fi HaLow Market Outlook, By Software (2023–2034) (\$MN)

Table 8 Global Wi-Fi HaLow Market Outlook, By Services (2023–2034) (\$MN)

Table 9 Global Wi-Fi HaLow Market Outlook, By Frequency Band (2023–2034) (\$MN)

Table 10 Global Wi-Fi HaLow Market Outlook, By Sub-1 GHz (2023–2034) (\$MN)

Table 11 Global Wi-Fi HaLow Market Outlook, By Other Supported Frequency Bands (2023–2034) (\$MN)

Table 12 Global Wi-Fi HaLow Market Outlook, By Deployment Mode (2023–2034) (\$MN)

Table 13 Global Wi-Fi HaLow Market Outlook, By On-Premises (2023–2034) (\$MN)

Table 14 Global Wi-Fi HaLow Market Outlook, By Cloud-Based (2023–2034) (\$MN)

Table 15 Global Wi-Fi HaLow Market Outlook, By Hybrid (2023–2034) (\$MN)

Table 16 Global Wi-Fi HaLow Market Outlook, By Application (2023–2034) (\$MN)

Table 17 Global Wi-Fi HaLow Market Outlook, By Smart Home (2023–2034) (\$MN)

Table 18 Global Wi-Fi HaLow Market Outlook, By Industrial IoT (2023–2034) (\$MN)

Table 19 Global Wi-Fi HaLow Market Outlook, By Smart Cities (2023–2034) (\$MN)

Table 20 Global Wi-Fi HaLow Market Outlook, By Healthcare (2023–2034) (\$MN)

Table 21 Global Wi-Fi HaLow Market Outlook, By Smart Agriculture (2023–2034) (\$MN)

Table 22 Global Wi-Fi HaLow Market Outlook, By Retail and Logistics (2023–2034) (\$MN)

Table 23 Global Wi-Fi HaLow Market Outlook, By Automotive (2023–2034) (\$MN)

Table 24 Global Wi-Fi HaLow Market Outlook, By Security and Surveillance
(2023–2034) (\$MN)

Table 25 Global Wi-Fi HaLow Market Outlook, By Other Applications (2023–2034)
(\$MN)

Table 26 Global Wi-Fi HaLow Market Outlook, By End User (2023–2034) (\$MN)

Table 27 Global Wi-Fi HaLow Market Outlook, By Residential (2023–2034) (\$MN)

Table 28 Global Wi-Fi HaLow Market Outlook, By Commercial (2023–2034) (\$MN)

Table 29 Global Wi-Fi HaLow Market Outlook, By Industrial (2023–2034) (\$MN)

Table 30 Global Wi-Fi HaLow Market Outlook, By Government and Municipalities
(2023–2034) (\$MN)

Table 31 Global Wi-Fi HaLow Market Outlook, By Agriculture (2023–2034) (\$MN)

Table 32 Global Wi-Fi HaLow Market Outlook, By Healthcare (2023–2034) (\$MN)

Table 33 Global Wi-Fi HaLow Market Outlook, By Logistics and Transportation
(2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World
(RoW) Regions are also represented in the same manner as above.

I would like to order

Product name: Wi-Fi HaLow Market Forecasts to 2034 – Global Analysis By Component (Chipsets, Modules, Access Points and Gateways, End Devices, Software, and Services), Frequency Band, Deployment Mode, Application, End User, and By Geography

Product link: <https://marketpublishers.com/r/W47DF33F7900EN.html>

Price: US\$ 4,150.00 (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/W47DF33F7900EN.html>