

LEO Satellite Market Forecasts to 2032 – Global Analysis By Satellite Type (Small Satellites, Medium Satellites (500-1000 kg), Large Satellites (>500 kg), and Other Satellite Types), Component, Service Type, Frequency Band, Application, End User, and By Geography

<https://marketpublishers.com/r/LB89361BA577EN.html>

Date: June 2025

Pages: 150

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

ID: LB89361BA577EN

Abstracts

According to Statistics MRC, the Global LEO Satellite Market is accounted for \$14.25 billion in 2025 and is expected to reach \$41.02 billion by 2032 growing at a CAGR of 16.3% during the forecast period. A Low Earth Orbit (LEO) satellite is a satellite that orbits the Earth at altitudes between approximately 160 to 2,000 kilometres. These satellites complete an orbit in about 90 to 120 minutes and are commonly used for communications, Earth observation, and scientific missions. Due to their proximity to Earth, LEO satellites offer low latency and high data transmission rates, making them ideal for applications like internet services and remote sensing.

According to the NASA, in 2023, 2,938 spacecraft were launched 68% under 600?kg, 27% under 200?kg driven by SmallSat constellations.

Market Dynamics:

Driver:

Growing demand for high-speed internet

As more consumers and businesses require reliable connectivity, satellite networks are being deployed to bridge gaps in underserved regions. LEO satellites offer low-latency

communication, making them suitable for applications like gaming, streaming, and remote work. Governments and private entities are investing in satellite-based broadband to expand coverage. The rise of IoT and smart devices is also pushing demand for seamless, high-speed internet solutions. This increasing reliance on digital services is driving substantial growth in the LEO satellite market.

Restraint:

Space debris and congestion risks

As thousands of satellites are launched for communication, navigation, and Earth observation, the risk of collisions increases, leading to more space debris. This debris can damage operational satellites, increasing maintenance costs and mission failures. Additionally, congestion complicates satellite navigation and orbit allocation, requiring more advanced tracking systems and coordination among international players. These challenges necessitate stricter regulations, debris mitigation technologies, and international cooperation, all of which add complexity and cost to LEO satellite operations.

Opportunity:

Advancements in satellite miniaturization

Advancements in satellite miniaturization are revolutionizing the LEO satellite market. Smaller and more efficient satellites reduce launch costs, making space technology more accessible. Miniaturized satellites can be deployed in larger constellations, enhancing coverage and network reliability. Improvements in propulsion and energy efficiency are extending the lifespan of these satellites. The emergence of standardized satellite platforms is accelerating development cycles. This trend is fostering innovation and expanding applications for LEO satellites across industries.

Threat:

Limited bandwidth and spectrum availability

The growing number of satellites increases competition for available frequency bands. Regulatory constraints on spectrum allocation create challenges for new market entrants. Companies are exploring advanced signal processing techniques to optimize bandwidth usage. Emerging technologies like laser communication may alleviate

spectrum limitations in the future. Ensuring fair and efficient spectrum distribution will be crucial for sustainable LEO satellite expansion.

Covid-19 Impact

The COVID-19 pandemic highlighted the importance of satellite-based connectivity for remote operations. Lockdowns and social distancing measures increased reliance on satellite internet for telehealth, education, and business continuity. Supply chain disruptions initially impacted satellite production and launch schedules. However, demand for resilient communication networks drove continued investment in LEO satellite technology. The pandemic reinforced the necessity of robust satellite networks for global connectivity.

The small satellites segment is expected to be the largest during the forecast period

The small satellites segment is expected to account for the largest market share during the forecast period, due to its cost-efficiency and versatility. Small satellites enable quicker and more affordable launches compared to traditional large satellites. Their compact design allows for mass deployment, enhancing coverage and network capabilities. Companies are leveraging small satellite constellations to offer broadband services in remote areas. Advancements in manufacturing and modular designs are further driving adoption.

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

Over the forecast period, the commercial segment is predicted to witness the highest growth rate, due to rising investments from private companies. Businesses are increasingly relying on satellite networks for communication, data transmission, and IoT applications. Startups and tech firms are driving innovation in LEO satellite technologies. The commercialization of space services is attracting venture capital and private funding. Satellite providers are expanding offerings to cater to enterprise and consumer demands.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share due to its expanding digital economy. Governments in the region are actively investing in satellite infrastructure to bridge connectivity gaps. Increasing demand for

broadband in rural and remote areas is driving satellite deployments. Emerging markets in Asia Pacific are adopting satellite-based internet solutions for economic growth.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to its strong space technology ecosystem. Leading satellite providers in the U.S. are driving innovation and large-scale deployments. Regulatory support and favorable policies are encouraging satellite commercialization. Strategic collaborations between private and government entities are enhancing satellite capabilities. High adoption of IoT, cloud computing, and remote sensing is fuelling market expansion.

Key players in the market

Some of the key players profiled in the LEO Satellite Market include Terran Orbital, SpaceX, Amazon, Eutelsat OneWeb, Telesat, Lockheed Martin Corporation, Northrop Grumman Corporation, Airbus Defence and Space, Thales Alenia Space, AST SpaceMobile, Planet Labs, Viasat, Iridium Communications, SES, Sierra Space.

Key Developments:

In June 2025, Northrop Grumman Corporation and Marshall Land Systems signed a Memorandum of Understanding (MOU) to advance command and control hardware solutions for the United Kingdom Ministry of Defence. Northrop Grumman and Marshall Land Systems intend to work together in support of the U.K.'s Ground Based Air Defence (GBAD) program for medium- and short-range air defence.

In May 2025, Lockheed Martin and Fujitsu Limited, a Japanese multinational leader in information and communications technology and digital services, announced the conclusion of a Memorandum of Understanding (MOU) establishing Fujitsu as a source for the SPY-7 Subarray Suite Power Supply Line Replaceable Unit (PS LRU). Purchase orders in support of the Aegis System Equipped Vessel program are anticipated later in 2025.

Satellite Types Covered:

Small Satellites

Medium Satellites (500-1000 kg)

Large Satellites (>500 kg)

Other Satellite Types

Components Covered:

Payload

On-board Computer

Structure

Attitude Control System

Power System

Thermal Control System

Propulsion System

Service Types Covered:

Satellite IoT Backhaul

Direct-to-Satellite (D2S)

Frequency Bands Covered:

L-band

V-band

S-band

X-band

Ku-band

Ka-band

Applications Covered:

Communication

Earth Observation & Remote Sensing

Scientific Research

Technology Demonstration & R&D

Surveillance & Security

Navigation and Mapping

Other Applications

End Users Covered:

Commercial

Government

Military & Defense

Academic & Research Institutions

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2024, 2025, 2026, 2028, and 2032
- 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:

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

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Application Analysis
- 3.7 End User Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL LEO SATELLITE MARKET, BY SATELLITE TYPE

- 5.1 Introduction
- 5.2 Small Satellites
 - 5.2.1 CubeSats
 - 5.2.2 Nano Satellites (1–10 kg)
 - 5.2.3 Micro Satellites (10–100 kg)
 - 5.2.4 Mini Satellites (100–500 kg)
- 5.3 Medium Satellites (500-1000 kg)
- 5.4 Large Satellites (>500 kg)
- 5.5 Other Satellite Types

6 GLOBAL LEO SATELLITE MARKET, BY COMPONENT

- 6.1 Introduction
- 6.2 Payload
- 6.3 On-board Computer
- 6.4 Structure
- 6.5 Attitude Control System
- 6.6 Power System
- 6.7 Thermal Control System
- 6.8 Propulsion System

7 GLOBAL LEO SATELLITE MARKET, BY SERVICE TYPE

- 7.1 Introduction
- 7.2 Satellite IoT Backhaul
- 7.3 Direct-to-Satellite (D2S)

8 GLOBAL LEO SATELLITE MARKET, BY FREQUENCY BAND

- 8.1 Introduction
- 8.2 L-band
- 8.3 V-band
- 8.4 S-band
- 8.5 X-band
- 8.6 Ku-band
- 8.7 Ka-band

9 GLOBAL LEO SATELLITE MARKET, BY APPLICATION

- 9.1 Introduction
- 9.2 Communication
 - 9.2.1 Broadband internet
 - 9.2.2 Mobile Communication
 - 9.2.3 Data relay
- 9.3 Earth Observation & Remote Sensing
 - 9.3.1 Environmental monitoring
 - 9.3.2 Urban planning
 - 9.3.3 Agriculture
 - 9.3.4 Disaster management
- 9.4 Scientific Research
- 9.5 Technology Demonstration & R&D
- 9.6 Surveillance & Security
- 9.7 Navigation and Mapping
- 9.8 Other Applications

10 GLOBAL LEO SATELLITE MARKET, BY END USER

- 10.1 Introduction
- 10.2 Commercial
- 10.3 Government
- 10.4 Military & Defense
- 10.5 Academic & Research Institutions
- 10.6 Other End Users

11 GLOBAL LEO SATELLITE MARKET, BY GEOGRAPHY

- 11.1 Introduction
- 11.2 North America
 - 11.2.1 US
 - 11.2.2 Canada
 - 11.2.3 Mexico
- 11.3 Europe
 - 11.3.1 Germany
 - 11.3.2 UK
 - 11.3.3 Italy
 - 11.3.4 France

- 11.3.5 Spain
- 11.3.6 Rest of Europe
- 11.4 Asia Pacific
 - 11.4.1 Japan
 - 11.4.2 China
 - 11.4.3 India
 - 11.4.4 Australia
 - 11.4.5 New Zealand
 - 11.4.6 South Korea
 - 11.4.7 Rest of Asia Pacific
- 11.5 South America
 - 11.5.1 Argentina
 - 11.5.2 Brazil
 - 11.5.3 Chile
 - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
 - 11.6.1 Saudi Arabia
 - 11.6.2 UAE
 - 11.6.3 Qatar
 - 11.6.4 South Africa
 - 11.6.5 Rest of Middle East & Africa

12 KEY DEVELOPMENTS

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

13 COMPANY PROFILING

- 13.1 Terran Orbital
- 13.2 SpaceX
- 13.3 Amazon
- 13.4 Eutelsat OneWeb
- 13.5 Telesat
- 13.6 Lockheed Martin Corporation
- 13.7 Northrop Grumman Corporation

- 13.8 Airbus Defence and Space
- 13.9 Thales Alenia Space
- 13.10 AST SpaceMobile
- 13.11 Planet Labs
- 13.12 Viasat
- 13.13 Iridium Communications
- 13.14 SES
- 13.15 Sierra Space

List Of Tables

LIST OF TABLES

- Table 1 Global LEO Satellite Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global LEO Satellite Market Outlook, By Satellite Type (2024-2032) (\$MN)
- Table 3 Global LEO Satellite Market Outlook, By Small Satellites (2024-2032) (\$MN)
- Table 4 Global LEO Satellite Market Outlook, By CubeSats (2024-2032) (\$MN)
- Table 5 Global LEO Satellite Market Outlook, By Nano Satellites (1–10 kg) (2024-2032) (\$MN)
- Table 6 Global LEO Satellite Market Outlook, By Micro Satellites (10–100 kg) (2024-2032) (\$MN)
- Table 7 Global LEO Satellite Market Outlook, By Mini Satellites (100–500 kg) (2024-2032) (\$MN)
- Table 8 Global LEO Satellite Market Outlook, By Medium Satellites (500-1000 kg) (2024-2032) (\$MN)
- Table 9 Global LEO Satellite Market Outlook, By Large Satellites (>500 kg) (2024-2032) (\$MN)
- Table 10 Global LEO Satellite Market Outlook, By Other Satellite Types (2024-2032) (\$MN)
- Table 11 Global LEO Satellite Market Outlook, By Component (2024-2032) (\$MN)
- Table 12 Global LEO Satellite Market Outlook, By Payload (2024-2032) (\$MN)
- Table 13 Global LEO Satellite Market Outlook, By On-board Computer (2024-2032) (\$MN)
- Table 14 Global LEO Satellite Market Outlook, By Structure (2024-2032) (\$MN)
- Table 15 Global LEO Satellite Market Outlook, By Attitude Control System (2024-2032) (\$MN)
- Table 16 Global LEO Satellite Market Outlook, By Power System (2024-2032) (\$MN)
- Table 17 Global LEO Satellite Market Outlook, By Thermal Control System (2024-2032) (\$MN)
- Table 18 Global LEO Satellite Market Outlook, By Propulsion System (2024-2032) (\$MN)
- Table 19 Global LEO Satellite Market Outlook, By Service Type (2024-2032) (\$MN)
- Table 20 Global LEO Satellite Market Outlook, By Satellite IoT Backhaul (2024-2032) (\$MN)
- Table 21 Global LEO Satellite Market Outlook, By Direct-to-Satellite (D2S) (2024-2032) (\$MN)
- Table 22 Global LEO Satellite Market Outlook, By Frequency Band (2024-2032) (\$MN)
- Table 23 Global LEO Satellite Market Outlook, By L-band (2024-2032) (\$MN)

- Table 24 Global LEO Satellite Market Outlook, By V-band (2024-2032) (\$MN)
- Table 25 Global LEO Satellite Market Outlook, By S-band (2024-2032) (\$MN)
- Table 26 Global LEO Satellite Market Outlook, By X-band (2024-2032) (\$MN)
- Table 27 Global LEO Satellite Market Outlook, By Ku-band (2024-2032) (\$MN)
- Table 28 Global LEO Satellite Market Outlook, By Ka-band (2024-2032) (\$MN)
- Table 29 Global LEO Satellite Market Outlook, By Application (2024-2032) (\$MN)
- Table 30 Global LEO Satellite Market Outlook, By Communication (2024-2032) (\$MN)
- Table 31 Global LEO Satellite Market Outlook, By Broadband internet (2024-2032) (\$MN)
- Table 32 Global LEO Satellite Market Outlook, By Mobile Communication (2024-2032) (\$MN)
- Table 33 Global LEO Satellite Market Outlook, By Data relay (2024-2032) (\$MN)
- Table 34 Global LEO Satellite Market Outlook, By Earth Observation & Remote Sensing (2024-2032) (\$MN)
- Table 35 Global LEO Satellite Market Outlook, By Environmental monitoring (2024-2032) (\$MN)
- Table 36 Global LEO Satellite Market Outlook, By Urban planning (2024-2032) (\$MN)
- Table 37 Global LEO Satellite Market Outlook, By Agriculture (2024-2032) (\$MN)
- Table 38 Global LEO Satellite Market Outlook, By Disaster management (2024-2032) (\$MN)
- Table 39 Global LEO Satellite Market Outlook, By Scientific Research (2024-2032) (\$MN)
- Table 40 Global LEO Satellite Market Outlook, By Technology Demonstration & R&D (2024-2032) (\$MN)
- Table 41 Global LEO Satellite Market Outlook, By Surveillance & Security (2024-2032) (\$MN)
- Table 42 Global LEO Satellite Market Outlook, By Navigation and Mapping (2024-2032) (\$MN)
- Table 43 Global LEO Satellite Market Outlook, By Other Applications (2024-2032) (\$MN)
- Table 44 Global LEO Satellite Market Outlook, By End User (2024-2032) (\$MN)
- Table 45 Global LEO Satellite Market Outlook, By Commercial (2024-2032) (\$MN)
- Table 46 Global LEO Satellite Market Outlook, By Government (2024-2032) (\$MN)
- Table 47 Global LEO Satellite Market Outlook, By Military & Defense (2024-2032) (\$MN)
- Table 48 Global LEO Satellite Market Outlook, By Academic & Research Institutions (2024-2032) (\$MN)
- Table 49 Global LEO Satellite Market Outlook, By Other End Users (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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