Flat Antenna Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 125 pages | Mordor Intelligence

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Report description:

The Flat Antenna Market is expected to record a CAGR of 23.8% over the forecast period. The market's growth can be attributed to their growing need for defense systems and proliferation in innovation, Leading To Wider Application of Flat Antenna.

Key Highlights
Further, the demand for connectivity in commercial aviation has been continually growing, and the operating environment has necessitated the development of phased array technology for satellite connectivity.
For commercial yachts and ships, flat antennas are particularly beneficial. Another sector that benefits from low-cost flat-panel antennas is land mobility. In addition, the industry is developing flat-panel antennas with ultra-thin antennas that use a holographic technique to electronically acquire, steer, and lock a beam to any satellite based on electromagnetic meta-materials technology. In the coming years, such widespread use of new technology in the flat antenna market will develop tremendously.
Though Flat Panel Arrays have been used limitedly due to high costs and variable performance, the introduction of Non-Geostationary Orbit satellite constellations from players like SES, SpaceX, Telesat, and others, is expected to act as a significant driver of the market.
Furthermore, the COVID-19 pandemic is projected to influence the market. The growing utilization of these technologies for 5G deployment will ensure that the market under consideration continues to expand. The quick extension of 5G smartphones from flagship-only models to the mid-range segment and 5 G's emergence as an independent network is likely to drive market growth.

Flat Antenna Market Trends

Adoption of Unmanned Systems in Defense and Increasing Demand for Commercial Aircraft

Unmanned Systems are being increasingly deployed for airborne and remote ground surveillance, border patrol, video

transmission, and tactical support. Hence, uninterrupted communication with the control center is critical for these systems. The growing need for Unmanned Systems, along with government initiatives, is expected to create demand for a wide range of antennas over the forecast period. For instance, in September 2021, India and the United States inked a Project Agreement (PA) for an Air-Launched Unmanned Aerial Vehicle (ALUAV) under the Defense Technology and Trade Initiative.
Though flat panel arrays have been used limitedly due to high costs and variable performance, the introduction of the non-geostationary orbit satellite constellations from players like Telesat, SES, SpaceX, and others, are expected to act as significant drivers in the market.
Further, the demand for connectivity in commercial aviation has been continually growing, and the operating environment has necessitated the development of phased array technology for satellite connectivity.
The rise in the adoption of ultra-thin antennas with a broader range to electronically acquire, steer, and lock a beam to any satellite, as well as the demand for connectivity in commercial aviation, are the significant factors that propel the market growth. In addition, these antennas are used in geostationary orbit satellite constellations. However, the high cost, low radiation efficiency, and low gain of flat antennas resulting in variable performance tend to restrain the flat antenna market growth.

North America is Expected to Dominate the Market

The growing use of flat antenna systems in commercials and defense applications makes this region one of the world's fastest-growing markets. Amazon, for instance, recently stated that it would deliver packages using drones within months. The company has acquired permission from the US Federal Aviation Administration to operate its drones in the US.
Such collaborative programs have met the need for flat antennas in defense. Kymeta will participate in Viasat's government-focused terminal modification kit program, which will ensure Kymeta's terminals interoperate with Viasat's current and next-generation high-capacity satellite communications (SATCOM) networks.
Additionally, the rising demand for electronically steered phased array flat panel antennas, increasing focus on space explorations and satellite launches in the US, and growing demand for VSAT-Based flat panel antennas for maritime and commercial applications are driving the growth of the flat panel antenna market.
Also, an Electrically steered flat panel antenna is expected to gain traction due to its compact size, low cost, and significant adoption in enterprise, maritime, land mobile, and aviation industries. AlCAN Systems (Canada), C-COM Satellite Systems Inc (Canada), and ThinKom Solutions (US) are some of the prominent players in North America that are providing electronically steered FPA systems.
Furthermore, Boeing Phantom Works in the United States has launched a novel flat satellite communications (SATCOM) broadband antenna that will allow military aircraft to receive high-speed data. The flat conformal antenna will be in production next year and will be used in the Navy's future unmanned mid-air refueling tanker, the MQ-25.

Flat Antenna Market Competitor Analysis

The flat antenna market is moderately fragmented, with the presence of numerous large and small players operating globally and regionally. Some of the key players operating in the market include Cobham plc, Kymeta Corporation, Airbus SE, Honeywell International Inc, and L3Harria Technologies, among others. The market has been experiencing significant new product launches and innovations.

March 2022 - Intellian revealed the invention of three antennas: a portable, rugged manpack terminal, a low-profile communication on the move (COTM) solution, and a high data rate fixed business solution. The corporation will also offer future terminals for aviation and maritime. The antenna lineup will be available in 2023.

March 2022 - By 2023, Hughes intends to make its antenna technology accessible for OneWeb services. Hughes unveiled a new electrically steerable flat panel antenna at Satellite 2022 as a follow-up to its hybrid consumer service demonstration. This antenna was designed for OneWeb LEO communication services.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

Table of Contents:

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