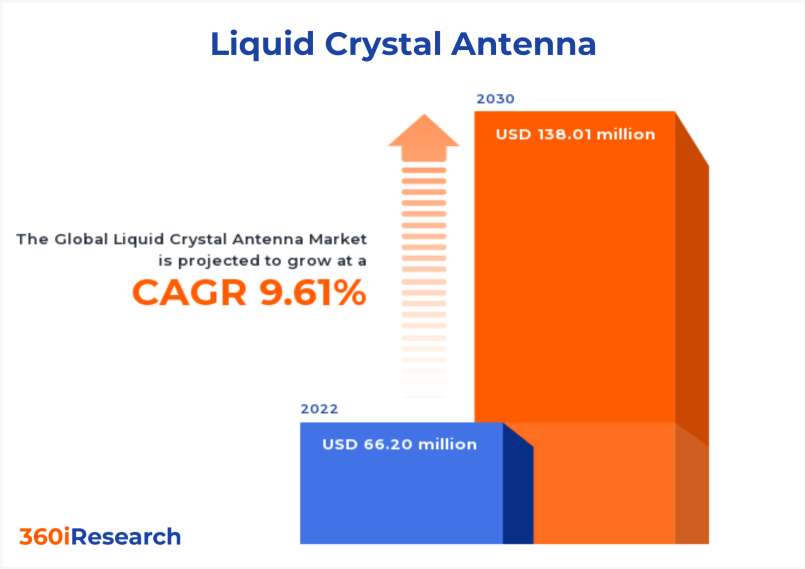
Liquid Crystal Antenna Market worth $138.01 million by 2030 - Exclusive Report by 360iResearch

The Global Liquid Crystal Antenna Market to grow from USD 66.20 million in 2022 to USD 138.01 million by 2030, at a CAGR of 9.61%.



Liquid Crystal Antenna Market - Exclusive Report by 360iResearch

PUNE, MAHARASHTRA, INDIA , November 16, 2023 / EINPresswire.com/ -- The "Liquid Crystal Antenna Market by Type (Electronically Steered Phased Array Antenna, Metasurface-based Antenna), Application (Automotive, Consumer Electronics, Healthcare) - Global Forecast 2023-2030" report has been added to 360iResearch.com's offering.

The Global Liquid Crystal Antenna Market to grow from USD 66.20 million in 2022 to USD 138.01 million by 2030, at a CAGR of 9.61%.

Request a Free Sample Report @ https://www.360iresearch.com/library/intelligence/liquid-crystal-antenna?utm_source=einpresswire&utm_medium=referral&utm_campaign=sample

The liquid crystal antenna is a type of antenna that utilizes liquid crystal materials to change its electronic properties and, consequently, its operating properties such as frequency, polarization, and radiation pattern. The functionality of a liquid crystal antenna hinges primarily on the variable electromagnetic attributes of liquid crystals. Liquid crystal antennas are widely applied in sectors such as telecommunications, defense, consumer electronics, and satellite communication. Their end-use includes devices such as smartphones, radars, WiFi routers, satellites, and televisions. The unique properties of liquid crystal materials make these antennas highly adaptable to different wireless connectivity systems, providing flexibility and efficiency to the end-users. Increasing demand for wireless connectivity and the growing adoption of IoT devices are elevating the demand for liquid crystal antennas. Furthermore, the rapid shift

towards 5G technology, owing to the increased need for high-speed and reliable wireless communication, creates a platform for market growth. High costs associated with the implementation and maintenance and technical constraints such as alignment issues of liquid crystal molecules and temperature effects hamper market growth. Continuous advancements by market vendors to improve the signal-to-noise ratio and increase the range and bandwidth of antennas are expected to create opportunities for market growth.

Application: Rising usage of liquid crystal antennas in consumer electronics due to its ability to support multi-bandwidth functionality

Liquid crystal antennas (LCAs) are in huge demand within the automotive sector, especially for the purpose of real-time data transmission in advanced driver assistance systems (ADAS) and autonomous vehicles. In the automotive field, LCA plays a pivotal role in enhancing vehicle connectivity. By utilizing LCA technology for V2X communication, vehicles can seamlessly interact with other vehicles, traffic management systems, and infrastructures on a real-time basis. LCAs have found ubiquitous applications in consumer electronics; they significantly boost the performance of devices, including smartphones, laptops, and home appliances. LCAs provide enhanced broadband capabilities to devices such as smartphones, laptops, tablets, and routers, thereby improving network capacity, data rate, coverage area, and reliability. The healthcare sector is adopting LCAs extensively for advanced monitoring and diagnostic equipment. They excellently cater to the requirement for high precision and reliability in biomedical devices. Devices equipped with LCAs can offer reliable and continuous patient monitoring, leading to timely diagnostics and improved healthcare outcomes. Also, LCAs have opened new possibilities for wearable health devices as they can be made flexible enough to fit within the design constraints of wearable technologies. The telecommunication industry is the bedrock of LCA applications. The antennas, with their superior signal reception and transmission, are key to effective communication.

Type: Expanding usage of metasurface-based antenna to boost wireless infrastructure's capabilities

An electronically steered phased array antenna (ESPAA) is an advanced technology device that operates by manipulating the phase of each individual antenna within an array, thereby steering the direction of the radiated beam electronically. ESPAA are preferred in applications where it is necessary to have both a wide coverage area and high-speed concurrent connections. These applications include radar systems, satellite communications, and 5G networks. ESPAA can shape and direct radio waves toward targeted users with pinpoint precision by feeding and controlling a large number of antenna elements in real-time, resulting in maximized spectral efficiency. The metasurface-based antenna is a groundbreaking technology that employs artificially structured surfaces, known as metasurfaces, to manipulate electromagnetic waves. They have the unique ability to alter the phase, amplitude, and polarization of incident waves, enabling advanced beamforming capabilities. Metasurface-based antennas are sought in scenarios where there is a need for highly efficient, customizable, and conformal antennas that can be tailored to specific applications without changing their physical dimensions. There is a growing need for such antennas in wireless communication systems, especially in modern 5G

and IoT applications where high performance and compact design are of paramount importance.

Regional Insights:
The continuous expansion of the telecommunication sector with a growing emphasis on wireless connectivity is expanding the growth of the liquid crystal antenna market in the Americas. Rising military expenditure across the U.S. and Canada for communication systems and surveillance tools, with a growing emphasis on the importance of enhanced communication capabilities for troops on the ground, is expected to create a platform for market growth in the Americas. In EU countries, the market for liquid crystal antennas is rapidly evolving due to the rising development of the wireless telecommunication industry and the increasing availability of broadcasting infrastructure providers. Expanding demand for autonomous vehicles in the Middle East and Europe is driving the market growth of liquid crystal antennas. The increasing multiple government initiatives, such as Smart Nation Singapore and Smart Cities Mission India, with a growing volume of 4G & 5G smartphones, are expected to create a platform for the growth of the liquid crystal antenna in Asia-Pacific. The members of ASEAN formed a collaborative framework, the ASEAN Smart Cities Network (ASCN), to facilitate collaboration between the member states while securing funding and obtaining support from external partners. Such investments encourage installing liquid crystal antennas in Asia-Pacific.

FPNV Positioning Matrix:

The FPNV Positioning Matrix is essential for assessing the Liquid Crystal Antenna Market. It provides a comprehensive evaluation of vendors by examining key metrics within Business Strategy and Product Satisfaction, allowing users to make informed decisions based on their specific needs. This advanced analysis then organizes these vendors into four distinct quadrants, which represent varying levels of success: Forefront (F), Pathfinder (P), Niche (N), or Vital(V).

Market Share Analysis:

The Market Share Analysis offers an insightful look at the current state of vendors in the Liquid Crystal Antenna Market. By comparing vendor contributions to overall revenue, customer base, and other key metrics, we can give companies a greater understanding of their performance and what they are up against when competing for market share. The analysis also sheds light on just how competitive any given sector is about accumulation, fragmentation dominance, and amalgamation traits over the base year period studied.

Key Company Profiles:

The report delves into recent significant developments in the Liquid Crystal Antenna Market, highlighting leading vendors and their innovative profiles. These include Adventenna Inc., AGC Inc., ALCAN Systems GmbH, BOE Technology Group Co., Ltd., Fujikura Ltd., Huawei Technologies Co., Ltd., Kreemo, Kymeta Corporation, Merck KGaA, Spatialite Antenna Systems, Sumitomo

Chemical Co., Ltd., and Taoglas Limited.

Inquire Before Buying @ https://www.360iresearch.com/library/intelligence/liquid-crystal-antenna?utm_source=einpresswire&utm_medium=referral&utm_campaign=inquire

Market Segmentation & Coverage:

This research report categorizes the Liquid Crystal Antenna Market in order to forecast the revenues and analyze trends in each of following sub-markets:

Based on Type, market is studied across Electronically Steered Phased Array Antenna and Metasurface-based Antenna. The Electronically Steered Phased Array Antenna is projected to witness significant market share during forecast period.

Based on Application, market is studied across Automotive, Consumer Electronics, Healthcare, and Telecommunication. The Healthcare is projected to witness significant market share during forecast period.

Based on Region, market is studied across Americas, Asia-Pacific, and Europe, Middle East & Africa. The Americas is further studied across Argentina, Brazil, Canada, Mexico, and United States. The United States is further studied across California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas. The Asia-Pacific is further studied across Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The Europe, Middle East & Africa is further studied across Denmark, Egypt, Finland, France, Germany, Israel, Italy, Netherlands, Nigeria, Norway, Poland, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and United Kingdom. The Europe, Middle East & Africa commanded largest market share of 37.55% in 2022, followed by Americas.

Key Topics Covered:

13. Appendix

The report provides insights on the following pointers:
1. Market Penetration: Provides comprehensive information on the market offered by the key players
2. Market Development: Provides in-depth information about lucrative emerging markets and analyzes penetration across mature segments of the markets
3. Market Diversification: Provides detailed information about new product launches, untapped geographies, recent developments, and investments
4. Competitive Assessment & Intelligence: Provides an exhaustive assessment of market shares, strategies, products, certification, regulatory approvals, patent landscape, and manufacturing capabilities of the leading players
5. Product Development & Innovation: Provides intelligent insights on future technologies, R&D activities, and breakthrough product developments

The report answers questions such as:
1. What is the market size and forecast of the Liquid Crystal Antenna Market?
2. Which are the products/segments/applications/areas to invest in over the forecast period in the Liquid Crystal Antenna Market?
3. What is the competitive strategic window for opportunities in the Liquid Crystal Antenna Market?
4. What are the technology trends and regulatory frameworks in the Liquid Crystal Antenna Market?
5. What is the market share of the leading vendors in the Liquid Crystal Antenna Market?
6. What modes and strategic moves are considered suitable for entering the Liquid Crystal Antenna Market?

Read More @ https://www.360iresearch.com/library/intelligence/liquid-crystal-antenna?utm_source=einpresswire&utm_medium=referral&utm_campaign=analyst

Mr. Ketan Rohom
360iResearch
+ 1 530-264-8485
ketan@360iresearch.com