Growing Demand for Gallium Nitride Devices in Consumer Electronics Drives the Global Market

Growing demand for gallium nitride devices in consumer electronics is one of the significant factors influencing the market growth.

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VANCOUVER, B.C, CANADA, June 15, 2023 /EINPresswire.com/ -- The global gallium nitride market is projected to be worth USD 320.4 Million by 2027, according to a current analysis by Emergen Research. The gallium nitride (GaN) market has witnessed substantial growth in recent years due to its wide range of applications across various industries.

Gallium nitride is a compound semiconductor material known for its superior performance characteristics compared to traditional silicon-based semiconductors. With high electron mobility, excellent thermal conductivity, and high breakdown voltage, GaN is well-suited for high-power and high-frequency applications. The GaN market has found significant adoption in power electronics, radio frequency (RF) devices, optoelectronics, and other sectors.

> Gallium Nitride Market Size – USD 69.3 Million in 2019, Market Growth - CAGR of 20.8%, Market Trends –Growing adoption of electric vehicles”
>
> *Emergen Research*

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A major driver of the gallium nitride market is the increasing demand for energy-efficient devices and systems. GaN-based power electronics have shown remarkable efficiency improvements, leading to significant energy savings in various applications like electric vehicles, renewable energy systems, and data centers. GaN's favorable characteristics, such as low conduction and

switching losses, make it an attractive alternative to silicon-based power devices, driving market growth.

Telecommunications is another driving force behind the gallium nitride market. The rising need for high-speed data transmission and wireless communication has led to the development of GaN-based RF devices, including power amplifiers. These devices offer higher power density, improved linearity, and enhanced thermal performance compared to conventional RF devices. As a result, GaN has gained traction in the telecommunications industry, further propelling market growth.

Key Parameters Analyzed in This Section:

Company Profiles

Gross Revenue

Profit margins

Product sales trends

Product pricing

Industry Analysis

Sales & distribution channels

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Competitive Landscape:

Furthermore, the report includes an in-depth analysis of the competitive landscape. The segment covers a comprehensive overview of the company profiles along with product profiles, production capacities, products/services, pricing analysis, profit margins, and manufacturing process developments. The report also covers strategic business measures undertaken by the companies to gain substantial market share. The report provides insightful information about recent mergers and acquisitions, product launches, collaborations, joint ventures, partnerships, agreements, and government deals.

Some major companies in the global market report include:

DOWA Electronics Materials Co. Ltd., Cree Inc., American Elements, Furukawa Co. Ltd., Mitsubishi Chemical Corporation, Kyma Technologies Inc., Soitec, IQE PLC, Infineon Technologies, and Nitride Semiconductors Co. Ltd., among others.

Some Key Highlights from the Report

In September 2019, Mitsubishi Electric Corporation declared the development of GaN-HEMT in a multi-cell structure in partnership with the National Institute of Advanced Industrial Science and Technology (AIST) and Research Center for Ubiquitous MEMS and Micro Engineering. The transistor is attached directly to a high thermal conductivity single-crystal heat-dissipating diamond substrate.

Gallium nitride finds application in smaller electronics, high-performance EVs and is the primary material for modern-day LED lighting solutions.

Gallium nitride is of immense significance in photovoltaic cells by enabling them to realize much higher power density than the silicon-based photovoltaic cell.

To know more about the report @https://www.emergenresearch.com/industry-report/gallium-nitride-market

Emergen Research has segmented the global gallium nitride market on the basis of substrate type, distribution channel, application, and region:

Substrate Type Outlook (Revenue, USD Billion; 2017-2027)

GaN-on-SiC

GaN-on-Si

GaN-on-Sapphire

Others

Distribution Channel Outlook (Revenue, USD Billion; 2017-2027)

Online

Offline

Application Outlook (Revenue, USD Billion; 2017-2027)

Radio Frequency Devices

Wireless Infrastructure

Satellite Communication

Military & Defense

Others

Power Electronics

Power Supply

Electric Vehicle

LiDAR

Servers & Data Centers

Wireless Power

Solar Photovoltaic Technology

Envelope Tracking

Others

Optoelectronics

LED

LASER

Others

Regional Outlook (Revenue, USD Billion; 2017-2027)

North America

U.S.

Canada

Mexico

Europe

Germany

UK

France

BENELUX

Rest of Europe

Asia Pacific

China

Japan

South Korea

Rest of APAC

Latin America

Brazil

Rest of LATAM

MEA

Saudi Arabia

UAE

Rest of MEA

Key Benefits of Buying the Global Gallium Nitride Report:

Comprehensive analysis of the changing competitive landscape

Assists in decision making processes for the businesses along with detailed strategic planning methodologies

The report offers an 8-year forecast and assessment of the Global Gallium Nitride Market

Helps in understanding the key product segments and their estimated growth rate

In-depth analysis of market drivers, restraints, trends, and opportunities

Comprehensive regional analysis of the Global Gallium Nitride Market

Extensive profiling of the key stakeholders of the business sphere

Detailed analysis of the factors influencing the growth of the Global Gallium Nitride Market

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About Us:

At Emergen Research, we believe in advancing with technology. We are growing market research and strategy consulting company with an exhaustive knowledge base of cutting-edge and potentially market-disrupting technologies that are predicted to become more prevalent in the coming decade.

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