

## GaN Semiconductor Devices Market – A cutting-edge technology, industry survey and new business opportunities 2024

The global market for gallium nitride (GaN) semiconductor devices is largely consolidated, with the top four companies commanding a share of over 65% of the overall market in 2015, states Transparency Market Research (TMR) in a new report. The dominant company among these four top vendors, Efficient Power Conversion Corporation, accounted for a 19.2% share of the global market in the said year. The other three topmost companies of the global market, which collectively enjoyed a considerably large share in the overall global market in the said year, are NXP Semiconductors N.V., GaN Systems Inc., and Cree Inc. Looking at the on-going research and development activities undertaken in the market, attempts made to eliminate issues related to reliability of GaN semiconductors is expected to be an important area of focus of key vendors in the near future. Transparency Market Research states that the global GaN semiconductor devices market will expand at a high 17.0% CAGR over the period between 2016 and 2024. With such exponential growth, the market, which had a valuation of US\$870.9 mn in 2015, is projected to rise to US\$3,438.4 mn by 2024. Of the key end-use industries utilizing GaN semiconductors, the aerospace and defense sector dominates, accounting for a share of over 42% of the global market in 2015. Rising Set of Applications and Focus on R&D to Boost Demand in North America and Europe North America and Europe are presently the dominant regional markets for GaN semiconductor devices and are expected to retain dominance over the next few years as well. The rising focus of the Europe Space Agency (ESA) on the increased usage of GaN semiconductors across space projects and the use of GaN-based transistors in the military and defense sectors in North America will help the GaN semiconductor devices market gain traction. For more information on this report, fill the form & @& [https://www.transparencymarketresearch.com/sample/sample.php?flag=S&rep\\_id=1034](https://www.transparencymarketresearch.com/sample/sample.php?flag=S&rep_id=1034) In the past few years, GaN technology has witnessed rapid advancements and vast improvement in the ability of GaN semiconductors to work under operating environments featuring high frequency, power density, and temperature with improved linearity and efficiency. These advancements has boosted the usage of GaN semiconductor devices across an increased set of applications and have played an important role in the market's overall growth lately. Along with this factor, the increased usage of GaN semiconductor devices in the defense sector has also emerged as a key driver of the global GaN semiconductor devices market. The continuous rise in defense budgets of developing and developed countries as well as the demand for inclusion of the technologically most advanced products in the arsenal of national and international armies will propel the global GaN semiconductor devices market in the near future. Relatively Higher Costs of GaN Semiconductor Devices to Hinder Market Growth GaN semiconductors are relatively expensive as compared to silicon-based semiconductors owing to the high production costs of gallium nitride as compared to silicon carbide. Further addition in the cost of GaN semiconductors is ensued due to the high cost of fabrication, packaging, and support electronics. Silicon-based semiconductors have witnessed a significant decline in their costs over the past few years, making high cost of GaN semiconductors a foremost challenge that could hinder their large-scale adoption. The issue can be tackled by producing GaN in bulk. However, there is currently no widespread method that can be used for the purpose owing to the requisition of high operating pressure and temperature and limited scalability of the material.

### About the Author

About TMR Transparency Market Research (TMR) is a global market intelligence company providing business information reports and services. The company's exclusive blend of quantitative forecasting and trend analysis provides forward-looking insight for thousands of decision makers. TMR's experienced team of analysts, researchers, and consultants use proprietary data sources and various tools and techniques to gather and analyze information.

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