+357 96 030922
info@marketpublishers.com

Global Gallium Arsenide (GaAs) Wafer Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

https://marketpublishers.com/r/G02D132D139EN.html
Date: January 2026
Pages: 101
Price: US$ 3,480.00 (Single User License)
ID: G02D132D139EN

Abstracts

According to our (Global Info Research) latest study, the global Gallium Arsenide (GaAs) Wafer market size was valued at US$ 387 million in 2025 and is forecast to a readjusted size of US$ 658 million by 2032 with a CAGR of 8.0% during review period.

Gallium Arsenide (GaAs) wafers are single-crystal III-V semiconductor substrates that enable high-frequency radio front-ends and efficient optoelectronic emitters; they matter because silicon struggles at the same switching speeds, noise figures, and direct-bandgap light emission GaAs naturally delivers. Upstream, supply hinges on purified gallium and arsenic sources plus VGF/LEC crystal growth, slicing, polishing, and epi-ready finishing; key suppliers publicly list Semi-Insulating and conductive variants across 100–200 mm diameters with epi-ready surfaces. Downstream, GaAs wafers feed RF & Microwave ICs (PAs, LNAs, switches, MMICs), Photonics (VCSELs and laser diodes), LED & Display, Space & Satellite links, III-V photovoltaics, and R&D. Typical procurement combines multi-year qualification with annual frameworks for recurring demand (RF and photonics), while small lots for R&D are one-off. Gross margins are generally in the low-to-mid twenties for mature 4–6-inch conductive lines and higher for Semi-Insulating 150–200 mm products, supported by process know-how, qualification cycles, epi-line compatibility, and sticky customer certifications.

In the current market, global production is around 66,886 k sq inch, with an average selling price of about 5.19 USD per sq inch EXW basis. Industry concentration is structurally high on a value basis: AXT and Freiberger publish the broadest SI and 150–200 mm portfolios. Regional demand is anchored in China, North America, Europe, and Japan/Korea within the Indo-Pacific, with smaller volumes elsewhere; SI at 150–200 mm skews to RF/MMIC and aerospace/defense-related links, whereas

+357 96 030922
info@marketpublishers.com

4–6-inch conductive wafers underpin VCSEL/LD and legacy LED. Suppliers emphasize epi-ready surface specs and long-running customer qualifications, which reinforce switching costs and stabilize pricing, particularly for SI wafers.

Looking to 2025–2031, directional growth is expected from three levers: (1) RF content per device in advanced smartphones, Wi-Fi, and infrastructure; (2) photonics expansion in 3D sensing, short-reach datacom VCSELs, and emerging micro-display stacks; and (3) space links and III-V photovoltaics. Technology upgrades include broader 150 mm adoption in photonics, gradual 200 mm SI ramps at select players, tighter epi-ready specs, and yield improvements around VGF. Key bottlenecks include export-license timing affecting cross-border shipments, capital-intensive crystal growth expansions, and the need to secure high-purity gallium and arsenic streams. On balance, demand growth is healthy but capacity additions remain gated by qualification cycles and capex, implying a structurally firm pricing environment for high-end SI wafers and a stable to mildly deflationary trend for high-volume 4–6-inch conductive lines as yields improve.

This report is a detailed and comprehensive analysis for global Gallium Arsenide (GaAs) Wafer market. Both quantitative and qualitative analyses are presented by manufacturers, by region & country, by Conduction Type and by Application. As the market is constantly changing, this report explores the competition, supply and demand trends, as well as key factors that contribute to its changing demands across many markets. Company profiles and product examples of selected competitors, along with market share estimates of some of the selected leaders for the year 2025, are provided.

Key Features:

Global Gallium Arsenide (GaAs) Wafer market size and forecasts, in consumption value ($ Million), sales quantity (K Sq in), and average selling prices (US$/Sq in), 2021-2032

Global Gallium Arsenide (GaAs) Wafer market size and forecasts by region and country, in consumption value ($ Million), sales quantity (K Sq in), and average selling prices (US$/Sq in), 2021-2032

Global Gallium Arsenide (GaAs) Wafer market size and forecasts, by Conduction Type and by Application, in consumption value ($ Million), sales quantity (K Sq in), and average selling prices (US$/Sq in), 2021-2032

Global Gallium Arsenide (GaAs) Wafer market shares of main players, shipments in revenue ($ Million), sales quantity (K Sq in), and ASP (US$/Sq in), 2021-2026

+357 96 030922
info@marketpublishers.com

The Primary Objectives in This Report Are:
To determine the size of the total market opportunity of global and key countries
To assess the growth potential for Gallium Arsenide (GaAs) Wafer
To forecast future growth in each product and end-use market
To assess competitive factors affecting the marketplace

This report profiles key players in the global Gallium Arsenide (GaAs) Wafer market based on the following parameters - company overview, sales quantity, revenue, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Freiberger Compound Materials, AXT, Inc., Sumitomo Electric Industries, Ltd., Vital Materials, China Crystal Technologies Co., Ltd., Yunnan Germanium Industry, DOWA Electronics Materials Co., Ltd., Zhejiang Kangpeng Semiconductor, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Market Segmentation

Gallium Arsenide (GaAs) Wafer market is split by Conduction Type and by Application. For the period 2021-2032, the growth among segments provides accurate calculations and forecasts for consumption value by Conduction Type, and by Application in terms of volume and value. This analysis can help you expand your business by targeting qualified niche markets.

Market segment by Conduction Type

Semi-Insulating

Semi-Conducting (Conductive)

Market segment by Diameter

6 inch

4 inch

+357 96 030922
info@marketpublishers.com

8 inch

Others

Market segment by Growth Method

VGF

LEC

Others

Market segment by Dopant Type

Semi-Insulating Undoped

Semi-Insulating Chromium Doped

N Type Silicon Doped

N Type Tellurium Doped

P Type Zinc Doped

Others

Market segment by Application

RF

LED

VCSEL

Photovoltaic

+357 96 030922
info@marketpublishers.com

Major players covered

Freiberger Compound Materials

AXT, Inc.

Sumitomo Electric Industries, Ltd.

Vital Materials

China Crystal Technologies Co., Ltd.

Yunnan Germanium Industry

DOWA Electronics Materials Co., Ltd.

Zhejiang Kangpeng Semiconductor

Market segment by region, regional analysis covers
North America (United States, Canada, and Mexico)
Europe (Germany, France, United Kingdom, Russia, Italy, and Rest of Europe)
Asia-Pacific (China, Japan, Korea, India, Southeast Asia, and Australia)
South America (Brazil, Argentina, Colombia, and Rest of South America)
Middle East & Africa (Saudi Arabia, UAE, Egypt, South Africa, and Rest of Middle East & Africa)

The content of the study subjects, includes a total of 15 chapters:

Chapter 1, to describe Gallium Arsenide (GaAs) Wafer product scope, market overview, market estimation caveats and base year.

Chapter 2, to profile the top manufacturers of Gallium Arsenide (GaAs) Wafer, with price, sales quantity, revenue, and global market share of Gallium Arsenide (GaAs) Wafer from 2021 to 2026.

Chapter 3, the Gallium Arsenide (GaAs) Wafer competitive situation, sales quantity, revenue, and global market share of top manufacturers are analyzed emphatically by landscape contrast.

+357 96 030922
info@marketpublishers.com

Chapter 4, the Gallium Arsenide (GaAs) Wafer breakdown data are shown at the regional level, to show the sales quantity, consumption value, and growth by regions, from 2021 to 2032.

Chapter 5 and 6, to segment the sales by Conduction Type and by Application, with sales market share and growth rate by Conduction Type, by Application, from 2021 to 2032.

Chapter 7, 8, 9, 10 and 11, to break the sales data at the country level, with sales quantity, consumption value, and market share for key countries in the world, from 2021 to 2026.and Gallium Arsenide (GaAs) Wafer market forecast, by regions, by Conduction Type, and by Application, with sales and revenue, from 2027 to 2032.

Chapter 12, market dynamics, drivers, restraints, trends, and Porters Five Forces analysis.

Chapter 13, the key raw materials and key suppliers, and industry chain of Gallium Arsenide (GaAs) Wafer.

Chapter 14 and 15, to describe Gallium Arsenide (GaAs) Wafer sales channel, distributors, customers, research findings and conclusion.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

2 MANUFACTURERS PROFILES

+357 96 030922
info@marketpublishers.com

3 COMPETITIVE ENVIRONMENT: GALLIUM ARSENIDE (GAAS) WAFER BY MANUFACTURER

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Gallium Arsenide (GaAs) Wafer Market 2026 by Manufacturers, Regions, Type and Application, Forecast to 2032

Product link: https://marketpublishers.com/r/G02D132D139EN.html

Price: US$ 3,480.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/G02D132D139EN.html