



**Global and China GaAs Industry Report,
2019-2025**

May 2019

STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Abstract

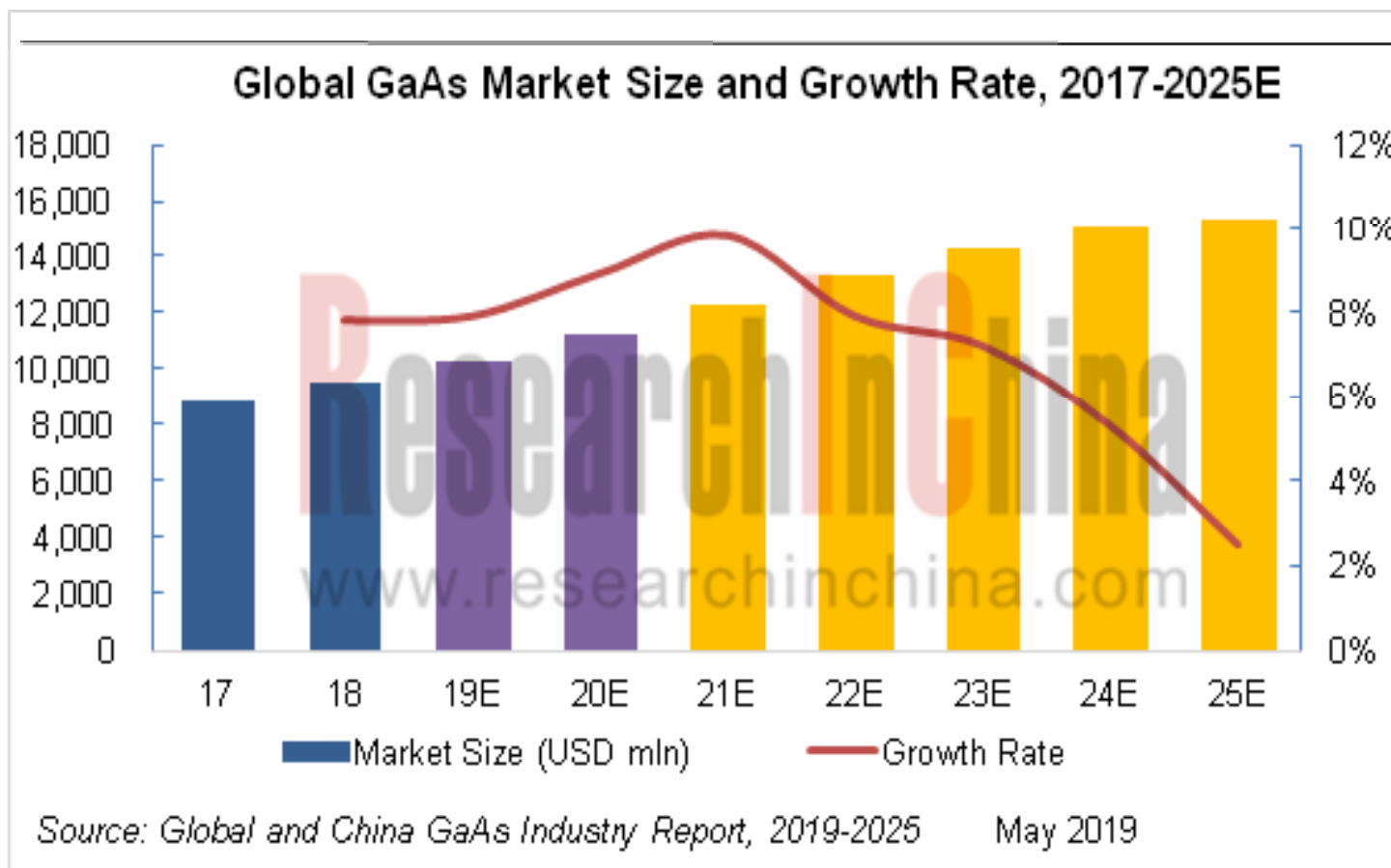
Gallium arsenide (GaAs), one of the most mature compound semiconductors, is an integral part of smartphone power amplifier (PA). In 2018, GaAs-based radio frequency (RF) seized over half of the GaAs wafer market. As smartphone market is being saturated and chips become smaller in size, GaAs-based RF grows at a slower pace in recent years. Yet in the wake of 4G-to-5G evolution of communication technology, GaAs will still play a key part in 6GHz-below frequency bands market due to its merits of high power and high linearity needed by carrier aggregation and multiple-input and multiple-output (MIMO) technologies. Beyond that, GaAs is also applicable to automotive electronics and military fields. In 2018, global GaAs components market boasted the total output value of USD9,519 million including that of integrated device manufacturers (IDM), an increase of 7.8% from a year earlier.

GaAs components find wide application in smartphones, wireless communications, automotive electronics, and military area, of which GaAs-based RF for smartphones, wireless communications led by communication base stations, automotive electronics and military purpose occupies roughly 53.4%, 27.2%, 2.2% and 5.3% of GaAs wafer market, respectively.

As for competitive pattern, Skyworks and Qorvo grab the biggest market shares, a combined over 55%. In global GaAs wafer foundry market which was worth USD789 million in 2018, WIN Semiconductors is the first-ranking vendor commanding 72.7% of the market in 2017.

Global and China GaAs Industry Report, 2019-2025 highlights the following:

- GaAs (definition, application, production process, technical comparison, etc.);
- Global GaAs industry (market size, supply and demand, competitive pattern, competitive products market, etc.);
- GaAs downstream industries (handset, wireless communications, etc.);
- RF front end market and segments (PA, antenna, filter, etc.);
- 19 foreign and Chinese vendors (Skyworks, Qorvo, Win Semi, etc.) (profile, operation, R&D, manufacturing base and technical characteristics, etc.).



1 Overview of GaAs

- 1.1 Introduction to GaAs
- 1.2 Application of GaAs
- 1.3 Comparison among GaAs, GaN and SiGe
- 1.4 Manufacturing Technique of GaAs

2 GaAs Industry

- 2.1 Industry Chain of GaAs
- 2.2 Global Capacity of GaAs
- 2.3 GaAs Supply and Demand
- 2.4 Competitive Pattern
- 2.5 Competitive Products Market
 - 2.5.1 SiC
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3 Downstream Markets of GaAs

- 3.1 Network Devices
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- 4.1 RF System of Latest Mobile Phones and Tablets
- 4.2 Mobile Phone Filter
- 4.3 Mobile Phone Antenna Switch
- 4.4 Mobile Phone PA
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- 4.6 Competition among GAAS PA, RF MEMS and CMOS PA

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- 5.1 Murata
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- 5.3 Semiconductor Division of Sumitomo Electric
- 5.4 Freiberger
- 5.5 AXT
- 5.6 IQE
- 5.7 WIN Semiconductor
- 5.8 AWSC
- 5.9 VPEC
- 5.10 GCS
- 5.11 TriQuint
- 5.12 Avago
- 5.13 ANADIGICS
- 5.14 RFMD
- 5.15 RDA
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