



FOR IMMEDIATE RELEASE:

5G is reshaping the RF technology landscape with enormous opportunities for RF power devices

RF Power Market and Technologies 2017: GaN, GaAs and LDMOS Report – Yole Développement – July 2017

LYON, France – July 10, 2017: “The revolutionary transition toward 5G implementation in the next five years is dramatically reshaping the RF¹ technology landscape”, announces **Zhen Zong, Technology & Market Analyst from [Yole Développement \(Yole\)](#)**. This is true for smartphones application but not only: RF telecommunication infrastructure applications above 3W, and 5G is offering enormous business opportunities for compound semiconductors in this RF power market...

The “More than Moore” market research and strategy consulting company Yole releases the report titled “[RF Power Market and Technologies 2017: GaN, GaAs and LDMOS Report](#)”. Under this new analysis, Yole invites you to discover the overall RF power market segments including telecom and military and many others. This report offers a complete analysis of the competitive landscape with RF power players such as NXP, Ampleon, Qorvo, Infineon, Sumitomo Electric, M-A/COM, Wolfspeed, UMS, Analog Devices. Yole reviews in details the devices developed and implemented in power amplifier applications and proposes a detailed comparison of the technology landscapes for LDMOS², GaAs³, GaN⁴ and SiGe⁵.

The RF power market will boom. Which technology, LDMOS, GaAs, GaN or SiGe GaN, will lead the industry? Yole’s analysts offer you today a relevant snapshot of the RF power market...

Yole expects the market to grow strongly in coming years with increasing demand for telecom base station upgrades and small cell implementations. Overall market revenue could increase 75% between 2016 and the end of 2022, posting a 9,8% CAGR⁶ during this period. This would be a change from US\$1.5 billion in 2016 to more than US\$2.5 billion in 2022.

Today the market is standing at the threshold of completion of 4G network, and then beginning the transition to 5G. There are still a lot to be settled and established. However, some things are for sure: the

¹ RF: Radio-Frequency

² LDMOS : Laterally-Diffused Metal-Oxide Semiconductor.

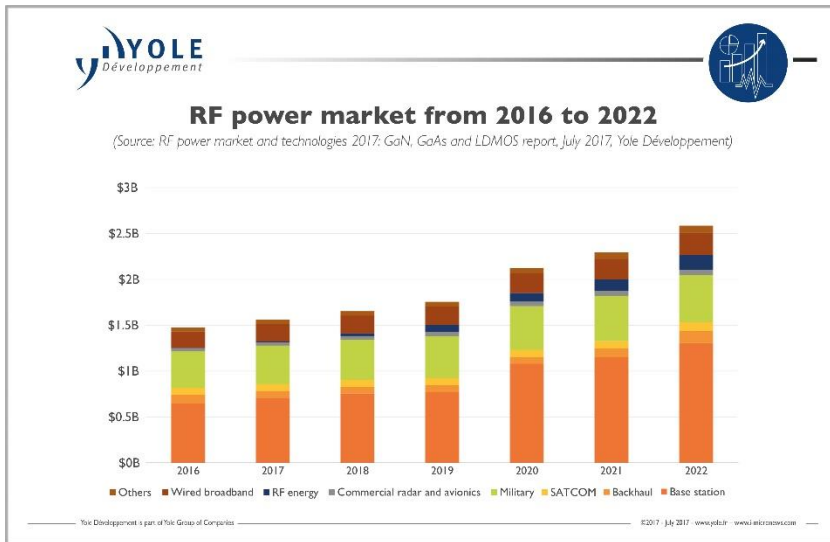
³ GaAs : Gallium Arsenide

⁴ GaN: Gallium Nitride

⁵ SiGe: Silicon Germanium

⁶ CAGR : Compound Annual Growth Rate

new radio network will require more devices and higher frequencies. Chip providers therefore have a tremendous opportunity, especially RF power semiconductor sellers. “At Yole we estimate the market size of telecom infrastructure including base stations and wireless backhaul accounts for about half of the total market size”, announces **Dr Hong Lin, Technology & Market Analyst at Yole**. In addition, she adds: “It will continue growing fast at an expected 12.5% CAGR for base stations and 5.3% CAGR for telecom backhaul over 2016–2022.”



In the meantime, defense applications are also providing good opportunities for RF power devices, as there is a trend of replacing old vacuum tube designs with solid-state technologies exploiting GaAs and GaN. These new technologies provide better performance, reduced size as well as robustness in various use cases. Therefore, they are gradually taking more market share. This market segment’s

revenue will increase around 20% by 2022 with a 4,3% CAGR between 2016 and 2022.

To discover in details Yole’s RF power technology & market report, go to i-micronews.com, [RF reports section](#).

About **RF Power Market and Technologies 2017: GaN, GaAs and LDMOS** report

The RF power market will boom; GaN is taking over LDMOS' market share... This report has been performed by Yole Développement (Yole) part of Yole Group of Companies.



Companies cited in the database:

Aethercomm, Alcatel-Lucent, Ampleon, Anadigics, Analog Devices, AT&T, Bell Laboratory, Cisco, China Mobile, China Telecom, China Unicom, Cree, Dynax, Dow, EADS, Epigan, Ericsson, Eudyna, Freiburg/Univ. Ulm/Fraunhofer IAF, Filtronic, Freescale, Fujitsu, Global Communication Semiconductors, Hittite/Keragis, Huawei, II-VI Inc, IMEC, IMECAS Infineon, Intel, IQE, KDDI, KT, LG Plus, Lockheed Martin, M/A-COM, Microsemi, Mitsubishi Chemical, Mitsubishi Electric, Motorola, NEC, Nitronex, Norstel, Nokia Networks, Northrop Grumman, NTT, NTT DOCOMO, NXP, OMMIC, Powdec, Qorvo, Qualcomm, RFHIC, RF Lambda, RFMD, Samsung, SICC, SiCrystal, SIOCS, SK Telecom, Softbank, Sprint, STMicroelectronics, Sumitomo Electric, Enkris Semiconductor, Raytheon, TankeBlue, Telstra, Thales, Thales III-V Lab, T-Mobile, Toshiba, Triquint, UMS, Unity Wireless, Verizon, Vodafone, WIN Semiconductors, Wolfspeed, and ZTE...

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Zhen Zong works as an analyst for Power Electronics and Compound Semiconductors technologies and market at Yole Développement, the “More than Moore” strategy consulting and market research company. He graduated from INSA Lyon with an engineering degree in material sciences, specialized in semiconductor devices and Micro/Nano technologies.

Dr. Hong Lin works at Yole Développement, the “More than Moore” market research and strategy consulting company, as a technology and market analyst since 2013. She is specialized in compound semiconductors and provides technical and economic analysis. Before joining Yole Développement, she worked as R&D engineer at Newstep Technologies. She was in charge of the development of cold cathodes by PECVD for visible and UV lamp applications based on nanotechnologies. She holds a Ph.D in Physics and Chemistry of materials.

About Yole Développement – www.yole.fr



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The “More than Moore” company Yole, along with its partners System Plus Consulting, PISEO, Blumorpho and KnowMade, support industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to grow their business.

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