

ALLOS transferred its power semiconductor technology to industry leader in less than twelve weeks

Dresden, Germany – 11th April 2016 – ALLOS Semiconductors has transferred its latest generation GaN-on-Si epiwafer technology in less than twelve weeks to a major international industry player. This is part of a comprehensive joint project to accelerate the GaN-on-Si power semiconductor product development of that customer.

ALLOS Semiconductors today announced the successful completion of the first phase of a customer project to develop market-ready GaN-on-Si power semiconductor products. ALLOS' customer is a major international industry player who has systematically invested into GaN-on-Si epitaxy and device processing in recent years. Objective of the project is to improve performance of upcoming products and accelerate time-to-market.

In the now completed first project phase ALLOS has transferred its newest GaN-on-Si power semiconductor epiwafer technology in less than twelve weeks to the customer. The technology transfer included – among other deliverables – comprehensive training of customer's engineers, detailed documentation and proof of reproducibility.

“We are proud to have the opportunity to work with a customer who has been developing the technology so seriously and acquired such an amount of expertise” comments Burkhard Slischka, CEO of ALLOS. “ALLOS capability to make a complete technology transfer possible in just twelve weeks, our guarantee of wafer spec achievement and ALLOS independent IP platform makes a decisive difference not only for new-comers but also for experienced players in the GaN-on-Si field” Slischka adds.

The customer was the first to receive this latest generation of ALLOS' technology which was developed and fundamentally improved over the last 18 months. The technology is designed for manufacturability and combines excellent crystal and electrical properties with processing properties unprecedented in the market like zero meltback, zero cracks and controlled wafer bow. Enabled by good yield, fast growth times and the use of various multi-wafer reactor platforms production cost per wafer area is on the same level as for today's GaN-on-sapphire LED wafers. This opens the way for GaN to compete with established power semiconductor technologies. “We believe you need to combine and balance these properties in a wafer technology platform right from the beginning” comments Dr. Atsushi Nishikawa, CTO of ALLOS on its manufacturability strategy and explains “We observe that many organizations who work on GaN-on-Si epitaxy achieve promising results on R&D level but don't reach the quality and reproducibility required in order to progress towards production.”

In the second project phase ALLOS' and the customer's joint team now started work on improving the existing device technology to market-readiness. “In addition to ALLOS' established role as a provider of turn-key GaN-on-Si epiwafer technology a main part of

ALLOS' contributions to the project is in working on device processing and characterisation topics in joint teams with the customer" explains Burkhard Slischka and concludes "Results from the project already show that the team can successfully combine ALLOS' technology and independent IP platform with the very good development achievements of the customer from the recent years. This way the customer is able to achieve product development results faster and with significantly reduced cost and risk, while leveraging the R&D investments made previously."

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