EPISTAR

Epistar is pleased with GaN-on-Si epiwafer technology from ALLOS

Hsinchu, Taiwan – 19th August 2015 - The 150 and 200 mm GaN-on-Si epiwafer technology transfer from ALLOS Semiconductors to Epistar was concluded in record time and with industry leading homogeneities and crystal quality.

Epistar Corporation and ALLOS Semiconductors today announced the successful conclusion of their project to establish ALLOS' mature 150 and 200 mm GaN-on-Si technology at Epistar. The project was executed with better than expected results and ahead of schedule in less than six months. For example excellent and reproducible crystal quality was achieved with total dislocation density value of $2x10^8$ cm^{-2}. With this performance Epistar has caught up with the world leading results of forerunners which have been developing GaN-on-Si LED technology for a long time.

During the project ALLOS established its GaN-on-Si epiwafer process on Epistar's epitaxy reactors. Epistar engineers were trained and worked in the integrated project team with ALLOS to gain full understanding and control over the GaN-on-Si technology. Currently Epistar's own leading LED technology is been transferred to GaN-on-Si structures.

"To conduct the technology transfer with ALLOS has proven to be the right decision for Epistar as it allowed us to quickly gain command over their leading GaN-on-Si technology in a very cost-efficient and reliable way", says Dr. M. J. Jou, President of Epistar Corporation, and continues "In a second phase we will now be focussing on realising the cost advantages of GaN-on-Si LEDs and to unlock the application benefits."

"To accomplish a project of this size and complexity with such results is a complete success and a good reason to be proud of the teams from both parties", comments Burkhard Slischka, CEO and Co-founder of ALLOS and further explains "This result underlines ALLOS' project execution skills as well as our technical capabilities to grow crack free wafers with market leading crystal quality. This is an example that our fast, cost-effective and successful implementation of GaN-on-Si helps our customers to reduce development risk and to save time and money."

About EPISTAR

EPISTAR Corp. is the world's largest manufacturer and solutions provider for LED epitaxial wafers and dies. Its product line covers the entire spectrum of LED epi-wafers and dies: an AlGaInP line encompassing red, orange, yellow, and yellow-green light LEDs, an InGaN line encompassing blue, green, and ultraviolet light LEDs, and Power IR products. Its products are used in markets including general lighting, backlighting for medium- to large-sized LCD screens, automobiles, and LED signage.

EPISTAR leads the industry in its R&D and production scale for AlGaInP LEDs and InGaN LEDs, and actively deploying its patent portfolio as well as numerous technology platforms. It reached patent cross-licensing agreements with Toyoda Gosei in 2010 and Philips in 2013, and has rapidly expanded production and product application development through acquisitions and strategic alliances.

About ALLOS Semiconductors

ALLOS is a technology engineering and licensing company helping clients from the semiconductor industry worldwide to master GaN-on-Si technology and unleash its benefits. ALLOS is providing licences to its technology know-how and patents as well as transferring the technology to its customers. In addition ALLOS is delivering customer specific solutions as well as consulting for next generation GaN-on-Si development challenges.

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