

March 17, 2014

SAMCO Signs Distributor Contract with American MOCVD System Manufacturer

On March 17, 2014, SAMCO Inc. signed a distributor agreement with Valence Process Equipment, Inc. (VPE), an American manufacturer of MOCVD (Metal Organic Chemical Vapor Deposition) process equipment. The agreement terms grant SAMCO exclusive distribution rights in Japan and unexclusive distribution rights in China, South Korea, and Europe.

In addition to gaining market share within Japan, as a global enterprise SAMCO is expanding its sales of dry etching and plasma CVD systems in Europe and North America. SAMCO's dry etching and plasma CVD technology serves applications involving wide band-gap semiconductor materials (e.g. RF device, LED, and semiconductor laser fabrication, etc.). Recently, SAMCO has placed a focus on selling next generation production systems for GaN power devices which are cornerstones to "green electronics" that have a large impact on energy conservation.

VPE (headquartered in Branchburg, New Jersey) is a technology company that has engaged in the development, production, and sale of MOCVD systems since its establishment in 2007. Until now, VPE's MOCVD equipment has been aimed at GaN LED applications. MOCVD systems typically use expensive process gases, resulting in the problem of high running costs. VPE has introduced to the market its "GaN 500" MOCVD system which has 40% less gas consumption in the reaction chamber than that in competing products. Additionally, the GaN 500 excels at high speed switching between necessary process gases as well as controlling the rise and fall of temperature. The GaN 500 design also allows for less contamination on the gas inlet to the chamber which results in reduced frequency of chamber cleaning. The system is capable of achieving GaN growth rates of > 5um/hr. and higher and on-wafer surface uniformity of < 1%. Designed for mass production, the GaN 500 chamber contains a Φ 500mm stage that can accommodate batches of 59 x Φ 2", 18 x Φ 4", or 6 x Φ 6" wafers. VPE also offers a system with a slightly larger stage (Φ 550mm) that can accommodate 72 x Φ 2" wafers.

The addition of MOCVD technology strengthens SAMCO's product lineup, as MOCVD, plasma CVD, dry etching, and surface treatment systems can be bundled together to fully serve GaN semiconductor production processes. In other words, SAMCO offers a "one stop solution" for customers involved with GaN semiconductor applications.

Finally, the distributor agreement also calls for the purchase of a VPE system to be used as a demo system at SAMCO's R&D Division in Kyoto. Installation of this demo system is planned for July 2014, and will allow SAMCO to satisfy the demo process requirements of customers involved with power device applications.



GaN 500 (exterior)



GaN 500 (chamber)