Speech subject： The Application of Multiphysics Simulation in Advanced Packaging

Speech leader: Anran Wei, Application Engineer, COMSOL

Speech Description/Objective:

Advanced packaging has become an important technology for the semiconductor industry to continue Moore's Law. Advanced packaging processes, represented by 2.5D/3D packaging, can integrate more chips and modules at higher densities with improved performance and power consumption. However, advanced packaging technology also imposes new requirements on electrical interconnections, thermal management, and reliability, which involves complex physics phenomena. COMSOL Multiphysics® software can be used to accurately simulate the different physical phenomena and their interactions, providing a powerful tool for solving critical issues in advanced packaging processes.

This presentation will demonstrate the wide range of applications of COMSOL Multiphysics software in advanced packaging processes, such as TSV fabrication, bonding and assembly, and thin wafer handling. In addition, micro-bump reliability, thermal management, and signal transmission characteristics of interconnect structures will be discussed.

Speech Outline:

Who Should Attend:

Introduction of Speaker:

Dr. Anran Wei, graduated from Shanghai Jiao Tong University, has extensive experience in numerical simulation and modeling. In COMSOL Multiphysics®, Dr. Wei is now responsible for technical support and customer consulting in the fields of structural mechanics, heat transfer, and electromagnetics.