

**CALCE Web Seminar:**

# **Temperature Cycle Reliability of Lead-free Solder Joint Interconnects**

**Date and Time:**

Aug. 28th start at 11:00am U.S. Eastern (8:00am U. S. Pacific)

**Telecon :**

Call-in number to be announced

This presentation will summarize the results of recent research by several investigators at the CALCE EPSC, on the temperature cycle fatigue reliability of lead-free SN100C, SAC395, and SAC305 solder as compared to Sn37Pb and Sn36Pb2Ag, under temperature cycle loading. The results demonstrate some significant differences between these solders and the lead-based solders, because of the higher creep resistance of these Pb-free solders and the differences in the microstructural deformation and fatigue mechanisms. Testing and simulation models derived from test results will be discussed.

**About the presenter: Michael Osterman** (Engineering Mechanics, Ph.D. University of Maryland, College Park) is a Senior Research Scientist and the CALCE Electronic Product and Systems Consortium Director at the University of Maryland. He is involved in the development of simulation assisted reliability assessment software and simulation approaches for estimating time to failure of electronic hardware under test and field conditions. Dr. Osterman is currently focused on lead-free solder interconnect reliability and tin whisker risk. He has written various book chapters and numerous articles in the area of electronic packaging. He is a member of ASME, IEEE, SMTA, and TMS.