

October 2009 consortium meeting details

Date: Oct. 28-29, 2009

Location:

Owega Treadway Inn & Conference Center ([map](#))
1100 State Route 17C, Owego, NY 13827-4839
(607) 687-4500

Hotel accommodations:

- [Treadway Inn](#) - Recommended
- [Hampton Inn](#), Owego
- [Holiday Inn Express](#), Owego

Tentative agenda:

Wednesday, October 28, 2009

8:00 AM: Breakfast

8:30: Morning session:

- Welcome by George Westby
- Update on new, systematic results of thermal cycling of lead free soldered assemblies
- Report on progress with neural network analysis of this and previous thermal cycling data.
- Update on pad cratering research
- Results on new thermal interface materials (TIMs)

Noon: Lunch

1:00: Afternoon session:

- Report results of reliability testing of various TIMs
- Discussion of new insights into lead free metallurgy
- Review of systematic studies of long term aging of lead free solders, and started to relate our complex materials testing results to the evolution of solder microstructure
- Address the use of low-Ag SAC alloys, the microstructure and the minimization of reflow temperatures
- Report on new, confounding results of combined loading, in this case cyclic bending results for SAC joints
- Update on combined loading research
- Report on the recrystallization of lead free solder joints and the variation with cycling parameters during isothermal and thermal cycling
- Explanation of the evolution of damage (slip bands) within the individual dendrites, the strain enhanced precipitate coarsening, and finally recrystallization and cracking. Discussion of how each of these mechanisms may affect damage accumulation under combined loads. This will all serve as a basis for the previously announced discussions of ESS testing. Your active participation and suggestions as to how we may work together to help you in your test designs, etc. are solicited.

6:00: Reception

7:00: Dinner

Thursday, October 29, 2009

8:00 AM: Breakfast

8:15:

- Report on our most recent findings on edge and corner bonding
- Update on efforts to define a practical, safe screening test for the identification of inferior electrolytic Ni, i.e. Ni/Au coatings that may give 'missing balls' and/or brittle failure of the intermetallic bond right after reflow
- Discussion of flux dipping of flip chips
- Brief discussion of reballing
- Discussion of initial look at ENEPIG coatings
- Overview of all the consortium reports generated over the years and how to find things in them

10:00: Poster session where you will have the opportunity for in-depth discussions of the major projects with the researchers, as well as networking with each other.

The formal program ends after lunch, but we will all be available for further discussions, lab tours, etc.