THE FINAL TEST REPORT



There was plenty for everyone at the 2008 and 9th annual Burn-in & Test Sockets Workshop (BiTS) regardless of their specialty within package test and burnin. It featured a full technical program of paper presentations, posters, tutorials, prominent speakers and an EXPO featuring products and services from leading suppliers. It also offered an extensive social program to promote networking,

The sold-out EXPO brought the latest products and services from 60 exhibitors to the 350 attendees (30 percent international) and the more than 150 exhibit-only participants.

The technical program's featured speakers delivered important talks on trends in packaging. Dr. Belgacem Haba, Fellow and CTO of Advanced Packaging and Interconnect at Tessera delivered the Invited Talk, while Dr. Karl J. Johnson, VP/Senior Fellow of the Advanced Packaging Systems Integration Laboratory at Freescale Semiconductor was the Keynote Speaker. Filling out the technical program were 26 paper presentations across 8 sessions, and 9 posters in 2 poster sessions.

There were also two tutorials. Ann Swift, Senior Reliability Engineer at IBM Microelectronics opened the Tutorial program with *Basic Chip Reliability Concepts. This was followed* by *"Intellectual Property: What Is It and What Do I Do With It?* by Ira Blecker, Esq., a Patent Attorney with the Law Offices of Ira D. Blecker.

BiTS was held at the Hilton Phoenix East /Mesa Hotel in Mesa, AZ and included meals, receptions, a casino/ karaoke party with a casino, karaoke & hors d'ouvres, and, of course, the warm Arizona sun. "An integral part of BiTS is to complement the technical program and EXPO with a social program that encourages networking", said Fred Taber, the BiTS Workshop's General Chair.

Dr. Karl Johnson spoke to the "challenges that are going to be facing the semiconductor industry with respect to packaging and assembly" in his keynote address Packaging & Assembly in Pursuit of Moore's Law and Beyond. He note that "over the history of the semiconductor industry the magic was felt to be in the silicon, silicon processing and in the design" but that now "as we continue to move down Moore's Law in the world of digital silicon, the assembly technology and packaging technology are now becoming an integral part of the overall system".

He emphasized that today "you cannot develop your silicon solution without a clear understanding of how your assembly technologies and your packaging are going to influence the overall performance of your system." He concluded by saying that "the market demands of systems Integration with increasing functionality, time to market, flexibility, reuse and 'cost, cost, cost' are necessitating a revolution in packaging and assembly technologies."

Dr. Belgacem Haba then took the audience on a tour of the latest 3D packaging technologies with his invited talk, *Catching the Mobile Wave: Packaging is Going 3D*. Pointing out that silicon consumes a small fraction of the space in a product and that the rest is packaging, he highlighted that "stacking as many die as possible in the Z-direction enables more silicon in less space thus smaller and lighter products with more function."

In closing.Dr. Haba noted that complex testing schemes would need to arise to handle the challenges of 3D packages that are thinner, with tighter I/O pitches (and contacts on the top and bottom), and often are multi-die with more embedded passives. During the 8 Technical Sessions and 2 poster sessions, authors from across socketing and related industries shared their recent work on a broad range of topics. Among awardwinning papers and posters were :

Best Paper; *Optimized Air Cooled Test Socket* – Grant Wagner, David Gardell; IBM Microelectronics

Best Poster; Complete Z0= 50 Ohm Coaxial Spring Probe IC Socket --Tatsumi Watabe; S.E.R. Corp.

Best Data *New Concept in Spring Probe Design –* John Winter, Larre Nelson, Amos Friedner; Rika Denshi.

Best Tutorial; *Thermal Design and Analysis*" Harlan Faller; Johnstech

Most Inspirational: *Batting Cleanup: Approaches to Maintenance of WLCSP Probe Card Interposers*" Jon Diller, Jamie Andes ; Interconnect Devices.

Attendee Choice "CO2 Composite Spray Technology For Test Socket Cleaning" David Jackson; Cool Clean Technologies



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San Diego CA http://www.swtest.org

June 8 - 13, 2008 Design Automation Conf Anabeim Convention Anabeim, CA http://www.dac.com