

IMAPS and SEMI Topical Workshop on
Advanced Interconnect Technologies

This event is co-located with SEMICON WEST2011 (July 12-14): www.semiconwest.org

July 13, 2011

San Francisco Marriott Hotel
55 Fourth Street
San Francisco, California - USA

Final Program & Abstracts

Program Chair:

Anwar Mohammed
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Program Co-Chair:

Chuck Woychick
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Workshop Focus

The **Advanced Interconnect Technologies Workshop** has been organized to allow for the presentation and debate of some of the latest interconnect and processing technologies in Electronic Packaging that support ever increasing device pitch and the need to embed increased levels of both passive and active functionality.

Session Synopsis

There is a relentless pressure on Advanced Interconnect designs. We are all too familiar about the insatiable quest for enhanced functionality and more sophisticated performance with increasing power requirements in diminishing packaging profiles. While that might contain allusions for job security the challenge is nevertheless very daunting and vexing. The session's dwells around some emerging technologies that strive to answer some of our most burning questions. New package stacking and 2.5D technology is covered while keeping an eye on some innovative cost reduction approaches like a super fast cure underfill, low temperature copper pillar bonding and a low cost FR4 material solution with 110 GHz transmission line properties. Wirebonding reliability is also covered in two different presentations. The session is designed to address some of the immediate challenges facing all of us.

Wednesday, July 13, 2011

Registration: 12:30 pm - 5:00 pm

Opening Remarks: 12:55 pm - 1:00 pm

Chairs: Anwar Mohammed, Huawei Technologies & Chuck Woychick, Tessera

SESSION 1

1:00 pm - 2:30 pm

- WP11 Silicon Interposers Enable 2.5D Assembly
Phil Marcoux, ALLVIA
- WP12 Which Frequency is Best for Wirebonding?
Josef Sedlmair, Farhad Farassat, Franz Schlicht, F&K Delvotec Bondtechnik GmbH
- WP13 High Current Testing of Gold and Copper Wirebonds
L. Nguyen, National Semiconductor Corp.

Break: 2:30 pm - 3:00 pm

SESSION 2

3:00 pm - 5:00 pm

- WP21 Reliability of 125µm Flip Chip Interconnects for Wireless Applications
Rajesh Katkar, Michael Huyhn, Ron Zhang, Ellis Chau, Laura Mirkarimi, Phil Damberg, Invensas Corporation
- WP22 A Low Cost Manufacturing Solution - Low Temperature Super-Fast Cure and Flow Reworkable Underfill
Wusheng Yin, YINCAE Advanced Materials, LLC
- WP23 Characteristics of Interconnects on FR408 at Millimeter-Wave Frequencies
Supreetha Aroor, Manish Nair, Rashaunda Henderson, University of Texas at Dallas
- WP24 Next Generation PoP Technology
Hamid Eslampour, InSang Yoon, YoungChul Kim, SungEun Park, KeonTaek Kang, STATSChipPac

Closing Remarks: 5:00 pm

**IMAPS Present TechXPOT on
Next Generation Materials and Processing for High Performance Packaging**

Moscone Center
San Francisco, California - USA

July 13, 2011

2:00 pm - 4:30 pm

TechXPOT South Stage at SEMICON WEST2011

Registration included when you register for SEMICON West2011.

Visit www.imaps.org/semiconwest/index.htm for more information.

Take some time to visit SEMICON West2011.

July 12 - 14, 2011

Moscone Convention Center, San Francisco, California

www.semiconwest.org

Only one block from the workshop location.

**IMAPS and SEMI Topical Workshop on
Wire Bonding**

San Francisco Marriott Hotel
San Francisco, California - USA

July 14, 2011

SESSION 1: BALL BONDING: AU AND CU

Session Chair:

Michael McKeown, Materior Technical Materials

8:00 am - 12:00 pm

Lunch: 12:00 pm - 1:00 pm

SESSION 2: WEDGE BONDING: AL, AU AND CU

Session Chair:

Charles Vath III, ComSol Consulting Pte. Ltd.

1:00 pm - 4:30 pm

ROUND TABLE DISCUSSION

Moderator:

Lee Levine, Process Solutions Consulting, Inc.

4:30 pm - 5:30 pm

*This year's panel will discuss the future of wire bonding:
materials, processes, devices.*

Panelist:

Bob Chylak, Kulicke & Soffa Industries, Inc.

Leroy Christie, ASM Pacific Technology, Ltd.

Dan Evans, Palomar Technologies, Inc.

Bernd Appelt, ASE Group

Flynn Carson, STATS ChipPAC Ltd.

Closing Remarks: 5:30 pm

THANK YOU

A SPECIAL *THANK YOU*

TO ALL OF THE MEMBERS OF THE ORGANIZING COMMITTEE, THE CHAIRS AND SPEAKERS.

YOUR PARTICIPATION IS GREATLY APPRECIATED!