IMAPS New England Symposium & Expo

May 5th 2015

Holiday Inn Boxbrorough, MA

* * * Technical Program Presentations * * *

Technical Directors : Tom Green - TJ Green Associates LLC & Dmitry Marchenko - Microsemi HPG

Presentations	Author / Speaker	Company
RF and Microwave - Innovations and Emerging Technologies - Part I	Tom Terlizzi - Session Co-Chair	Dr. Chandra Gupta - Session Co-Chair
Surface Mount Multi-Layer Ceramic Capacitors for RF Power Applications	Kevin Christian	Vishay
Contract Manufacturing for the RF Microwave World	Jim Morgan	SemiGen
Nonlinear Effects in Active Phased Array System Performance	Dr. Larry Williams	ANSYS
Designing and Building Microwave Circuits in LTCC	Dr. Prakash Bhartia	NATEL
100nm GaN on Si: A Pioneering Technology to Enable High RF Power in Millimeter Wave Bands	Tom Terlizzi / Dr. Fabien Robert	OMMIC
Advanced Technologies for 2.5D/3D Packaging	Maria Durham - Session Co-Chair	Ken Araujo - Session Co-Chair
TSV Impact on Chip Package Interaction for 20nm Silicon	Sukesh Kannan	Global Foundaries
Epoxy Underfill Challenges for Copper (Cu) Pillar Solder Bump Packages	Ken Araujo	Namics
2.5/3D Integration Technology and Applications	Chuck Woychik	Invensas
Void Reduction and Elimination for Reflow & Curing Processes	Tom Nash	Heller Industries
Optimizing IP for Cost Effective 2.5D Integration	Lisa Minwell	eSilicon Corp
MEMS and Nano Technology for UAV, Energy, Security and Biomedical	Parshant Kumar - Session Co-Chair	Prof Latika Menon - Session Co-Chair
Aerodynamics Flow Testing of MEMS Sensors	Robert D. White	Tufts University
Leak Rate Sensitivity of Small Devices - OLT Technology	Tom Trafford	Norcom Systems Inc.
ZnO and Related Nanostructures for Electronics and Photonics	A F M Anwar	Univ. Connecticut
One-Dimensional Nanostructures for Energy and Electronics Applications	Latika Menon	Menon Laboratories Inc and NEU
Advanced Fault Isolation Techniques for Microelectronics Packaging Yield and Reliability Enhancement	David Vallett	Peak Source Analytical
Fabrication and Application of A Novel Electrochemical Sensor Based on Pt Nanowire Array Coated with Au Nanoparticles	Zhiyang Li	University of Massachusetts Lowell
SMT and Electronics Packaging	Michael Jansen - Session Co-Chair	Tina Barcley - Session Co-Chair
An Overview of IPC Plating Specification: Completions, Revisions and Future Plans	George Milad	Uyemura International Corporation
Solder Fatigue in Tin-Lead and Silver-Tin-Copper Solders	Tina Barcley	TAS Consulting
A Thermally Functionalized Structural Material for Heat Spreading in Handheld Devices	Dr. Aaron Vodnick	Materion
Electromagnetic Compatibility Testing in an All-Electric Vehicle	Lennart Long / Stephen W. Sauter	LenLong and Associates
The Future of Solder Joint Encapsulant	Dr. Wusheng Yin	YINCAE Advanced Materials, LLC
Keynote Lunch Speaker		
3D Technology Trends & Key Manufacturing Challenges	**Amandine Pizzagalli**	**Yole Développement**

Presentations	Author / Speaker	Company
Printed Electronics	Craig Armiento - Session Co-Chair	James Zunino - Session Co-Chair
3D Printed Electronics Functionalizing Smart Devices which are Empowering the Industrial Internet of Things	Mike O'Reilly	Optomec, Inc
Flexible, Printed Electronics for Sensing and Energy Storage	Dr. Erik Handy	SI2 Technologies
Reconfigurable Printed phased array antennas	Prof. Alkim Akyurtlu	University of Massachusetts Lowell
Printing Functional Materials	Dr. Scott Slimmer	Harvard University
Additive Manufacturing and Integration of Electronics for Military Systems and Applications	James Zunino	US Army
RF and Microwave - Innovations and Emerging Technologies - Part II	Tom Terlizzi - Session Co-Chair	Dr. Chandra Gupta - Session Co-Chair
Advanced Packaging Concepts For Manufacturing	Dr. Hormazdyar Dalal	Analog Devices Inc.
Ametek Electronic Packaging S-Bend Ceramic Feedthrough	Ken McGillivray	Ametek
Liquid Crystal Polymer Substrates to Enable Advanced RF and Medical Applications	Susan Bagen, PE	Consulting Engineer (retired)
Cu Wire and Advanced Interconnect Technology	Mike McKeown - Session Co-Chair	Bill Boyce - Session Co-Chair
Critical Barriers Associated with Copper Wire	William (Bud) Crockett Jr	Tanaka
Physical RF Circuit Techniques and Their Implications on Future Power Module and Power Electronic Design	Adam Morgan	NCSU
Accelerating Reliability Assessment with Multi-Oven Racks and Sensor Chips for Wire Bonds	M. Mayer	Univ. of Waterloo, ON, Canada
Poster Session	Zhiyong Gu - Session Co-Chair	Dr. Rita Mohanty - Session Co-Chair
Robots, Robots Everywhere	Scott Mazur	Benchmark Electronics
Structural Characterization and Phase Behavior of Sn/In Nanosolders at Elevated Temperatures	Yang Shu	Univ. of Massachusetts Lowell
Magnetically Assembling Nanoscale Metal Network into Phase Change Material—Percolation Threshold Reduction in Paraffin Using Magnetically Assembly of Nanowires	Junwei Su	Univ. of Massachusetts Lowell
Synthesis and Characterization of Novel Magnetic Core and Solder Shell Nanoparticles	Edward Fratto	Univ. of Massachusetts Lowell
A Fiber Optic Ultrasound Transducer for Biomedical Ultrasound Imaging Applications	Nan Wu	Univ. of Massachusetts Lowell
Synthesis and Catalytic Properties of Silica-Cobalt Core-Shell Nanoparticles	Yan Zhang	Univ. of Massachusetts Lowell
Development of Pb-free and Halogen-free Nanosolder-Enabled Solder Pastes	Evan Wernicki	Univ. of Massachusetts Lowell