



**February 6-9, 2017
Kauai, Hawaii**

The Best of Today, A Preview of Tomorrow

Monday, February 6th

TIME	LOCATION	
2:00p-5:30p	Ballroom Foyer	REGISTRATION
		Plenary Keynote Session Chair: Chuck Bauer, Ph.D., TechLead Corporation
3:00p-3:35p	Poipu	"Shift-Left" - Rapid Electronics Design with Advanced Tools And Optimized Workflow Dwight Howard, Delphi
3:35p-4:10p	Poipu	Fostering Innovation in Digital Health – A New Ecosystem Matthew Hudes, bdlBiologx LLC
4:10p-4:20p	Poipu	Welcome Message from Phil Isaacs, IBM Corporation
4:20p-4:55p	Poipu	Intelligent Manufacturing Automation Horatio Quinones, Ph.D. and Yang Yong, FDCS LLC
5:00p-6:00p	Luana Kai	WELCOME RECEPTION

Tuesday, February 7th

TIME	LOCATION	Session 1 - Materials & Reliability Chair: Tim Jensen, Indium Corporation	LOCATION	Session 2- Nanotechnology Chair: Keith Bryant, SMT Solutions
8:30a-9:00a	Poipu	Thermal Cycling Testing to Failure of a Ceramic Column Grid Array Package for Space Applications Rajeshuni Ramesham, Ph.D., Jet Propulsion Laboratory	Koloa	Wafer-Level Fabricated High-Performance Micro/Nano Gas Sensor Tie Li, Ph.D., Lei Xu, Ph.D., Le Luo, Ph.D., Yuelin Wang, Ph.D., Shanghai Institute of Microsystem and Information Technology
9:00a-9:30a	Poipu	Influence of Intermetallic Thickness and Elastic Modulus on Passivation Thermal Stress Raj Sekar Sethu, P.E., X-FAB Semiconductor Foundries; How Ung Ha, Ph.D., and Kok Heng Soon, Ph.D., Swinburne University of Technology Sarawak	Koloa	Nanoscale Profile Copper for High Speed Transmission Printed Wiring Boards Osamu Suzuki, NAMICS Technologies
9:30a-9:45a	Ballroom Foyer	REFRESHMENT BREAK		
9:45a-10:15a	Poipu	Solder Ball Joint Reliability with Electroless Ni/Pd/Au Plating – Influence of Electroless Pd Deposition Reaction Process and Electroless Pd Film Thickness Yoshinori Ejiri, Kunihiko Akai, Yasushi Sugimoto, Kiyoshi Hasegawa, Hitachi Chemical Co., Ltd.	Koloa	Laser Releasable Temporary Bond/De-bond Materials for Next 3D Packages Koichi Hasegawa, Ph.D., Takashi Mori, Hikatu Mizuno, Hiroyuki Ishii, Yooichiroh Maruyama, Ph.D., and Kenzo Ohkita, Ph.D., JSR Corporation
10:15a-10:45a	Poipu	NASA-DoD Phase 3 Consortium Testing Plan for Alternate Alloys for Use on High-Reliability Products Jeff Kennedy, Celestica, Inc.; David Hillman, Rockwell Collins	Koloa	Industry Trends in Photonics Packaging and Passive Fiber Alignment Martin Anselm, Ph.D., Rochester Institute of Technology
11:00a-11:45a	Poipu	Symposium Keynote I Chair: Yasumitsu Orii, Ph.D., NAGASE Group Fabric-Based Fine Pitch Interconnect Technology Using Anisotropic Conductive Films(ACFs) Kyung W. Paik, Ph.D., KAIST		
11:45a-12:45p	Garden Pavillion	LUNCH BREAK		
		Session 3- Quality & Reliability Strategies Chair: Dock Brown, CRE, DfR Solutions		Session 4- Design & Manufacturing Strategies Chair: Rich Henrick, Sanmina Corporation
12:45p-1:15p	Poipu	Smart Tags that are Exactly Reliable Enough Maaike M. Visser Taklo, Ph.D., Branson D. Belle, Daniel Nilsen Wright, Astrid-Sofie B. Vardøy, Anexandre Garcia, SINTEF; Torbjörn Eriksson, Olle Hagel, Magnus Danestig, Thin Film Electronics AS	Koloa	Reliability Improvement of Cu-wire Bonded Lead Frame Package for Automotive Applications Tatsunori Saruwatari, Toru Takahashi, Akinori Ono, Yuichi Asano, Toshihiro Iwasaki, Mitsuru Ooida, and Yoichi Hirtua, J-Devices Corporation

1:15p-1:45p	Poipu	Board Level Reliability of BGA Multichip Modules Robert Darveaux, Ph.D. and Bhuvaneshwaran Vijayakumar, Skyworks Solutions, Inc.	Koloa	Impact of Wide Band Gap Devices on Power Electronics Packaging Designs Chris Bailey, Ph.D., MBA, P. Rajaguru, and H. Lu, University of Greenwich
1:45p-2:15p	Poipu	Introduction to HALT - Making Your Product Robust John Cooper, CRE, PE., Ops A La Carte, LLC	Koloa	
2:15p-2:30p	Ballroom Foyer	REFRESHMENT BREAK		
		Session 5- Reliability & Test Chair: Sal Sparacino, ZESTRON America		
2:30p-3:00p	Poipu	Reliable Microelectronic Assembly Process Design Test Methods - A Non-Standard Approach Mike Bixenman, DBA, KYZEN Corporation; Mark McMeen and Jason Tynes, STI Electronics		
3:00p-3:30p	Poipu	Investigating Test Methods for Electrochemical Consistency in PCB Assembly Processes Brook Sandy-Smith, Indium Corporation		
3:30p-4:00p	Poipu	Comparison of Ionic Contamination Test Methods to Determine Their Ability to Reliably Predict Performance Risks Phil Isaacs, Jennifer Porto, Dave Braun, IBM Corporation; Terry Munson, Foresite, Inc.		
4:00p-4:45p	Poipu	<u>Ionic Test Method Panel</u> Moderator: Chuck Bauer, Ph.D., TechLead Corporation Debbie Carboni, KYZEN Corporation Jeff Kennedy, Celestica Inc. Terry Munson, Foresite Inc. Brook Sandy-Smith, Indium Corporation Karl Seelig, AIM		

Wednesday, February 8th

TIME	LOCATION	Session 6- Packaging Solutions- 1 Chair: Soeren Noerlyng, MICRONSULT	LOCATION	Session 7- Roadmaps & Manufacturing Strategies Chair: Satoru Kuramochi, P.E., Dai Nippon Printing
8:30a-9:00a	Poipu	Mixed Signal Glass Module for IoT Applications Srikrishna Sitaraman, Ph.D., Tony Contreras, Ray Kahidi, Terry Bowen and Mohammad Ahmed, Tyco Electronics Corporation, a TE Connectivity Ltd. Company; Ganesh Bhatt, Advanced Electronic Solutions	Koloa	One Approach How to Reduce Data Transferring Kanji Otsuka, Ph.D., Yoichi Sato, and Fumiaki Fujii, Meisei University
9:00a-9:30a	Poipu	Atomic Level InP/Si Wafer-Scale Direct Bonding in Low Temperature Xuanxiong Zhang, Ph.D., University of Shanghai for Science and Technology	Koloa	Defining the Quality View Selim Nahas, Applied Materials
9:30a-9:45a	Ballroom Foyer	REFRESHMENT BREAK		
9:45a-10:15a	Poipu	High-Density Via Fabrication Technology Solution for Heterogeneous Integration Yasuhiro Morikawa, Takahide Murayama, Toshiyuki Sakuishi, Muneyuki Sato, and Akiyoshi Suzuki, ULVAC, Inc.	Koloa	Effect of Leadership Style on Organizational Commitment Olayide A. Aina, MBA, DM, Esteamop Consulting; Kewal K. Verma, Ph.D., BCA International
10:15a-10:45a	Poipu	Influences on Crack Initiation in Conductor Tracks on Three-dimensional Thermoplastic Substrates Thomas Kuhn and Jörg Franke, Institute for Factory Automation and Production Systems	Koloa	An Overview of Reliability John Cooper, P.E., Ops A La Carte, LLC
11:00a-11:45a	Poipu	Symposium Keynote II Chair: Brook Sandy-Smith, Indium Corporation Scalable Packaging Platform Supporting High-Performance 3D Chip Stacks Thomas Brunschweiler, Ph.D., Gerd Schlottig, Arvind Sridhar, Antonio La Porta, Ozgur Ozsun, Jonas Zürcher, Rahel Strässle, Luca Del Carro, IBM Research; Pedro A. M. Bezerra, Power Electronic Systems Laboratory		
11:45a-12:45p	Garden Pavillion	LUNCH BREAK		
		Session 8- Packaging Solutions- 2 Chair: Ramesham Rajeshuni, Ph.D., Jet Propulsion Laboratory		Session 9- Advanced Process- 1 Chair: Maaik M. Visser Taklo, Ph.D., SINTEF

12:45p-1:15p	Poipu	Additive Metallization of Injection Molded Ceramic Components by a Plasma-Coating Process Thomas Braun, Dipl.-Ing., Antonia Diepgen, Kerry Schröppel, Jörg Franke, Institute for Factory Automation and Production Systems; Sandra Greiner, Dietmar Drummer, Friedrich-Alexander-Universität Erlangen-Nürnberg	Koloa	Volumetric Characterization of Reservoir Printing in Deep Cavities Phani Vallabhajosyula, Ph.D., William Coleman, Ph.D., Karl Pfluke, Photo Stencil; Mark Reece and Brook Sandy-Smith, Indium Corporation
1:15p-1:45p	Poipu	Direct Bond Interconnect for Fine-Pitch Bonding in 3D and 2.5D Integrated Circuits Liang Wang, Gill Fountain, Bongsub Lee, Guilian Gao, Cyprian Uzoh, Scott McGrath, Paul Enquist, Sitaram Arkalgud, and Laura Mirkarimi, Invensas Corporation	Koloa	Reinforced Solder Preforms for High-Reliability and Low Voiding Tim Jensen, Sunny Neoh, and Adam Murling, Indium Corporation
1:45p-2:15p	Poipu	Implantable Hemodynamic Controlling System with a Highly Miniaturized Two Axis Acceleration Sensor Mario Baum, Ph.D., Dirk Wuensch, Roman Forke, Tim Schroeder, Maik Wiemer, and Thomas Otto, Fraunhofer ENAS; Karla Hiller, Sebastian Weidlich, Susann Hahn, Danny Reuter, Chemnitz University of Technology; Jens Weidenmueller, Oezgue Dogan, and Michael Goertz, Fraunhofer IMS	Koloa	Weak Organic - Detection and Reliability Assessment Karl Seelig and Timothy O'Neill, AIM
2:15p-2:30p	Ballroom Foyer	REFRESHMENT BREAK		
		Session 10- Advanced Process- 2 Chair: Kirsten Weide-Zaage, Ph.D., Institute of Microelectronic Systems		
2:30p-3:00p	Poipu	Process Considerations for Lead Free Assemblies Phil Isaacs, Kar Lin Chia, Huat Ing Poh, and Tom Truman, IBM Corporation and Venture Corporation Ltd.		
3:00p-3:30p	Poipu	Void Reduction in Reflow Soldering Processes by Sweep Stimulation of PCB Substrate - Influence of Solder Paste Viktoria Rawinski, Ersä GmbH		
3:30p-4:00p	Poipu	A Fast Pneumatic Droplet Generator for the Ejection of Molten Aluminum Dominik Rumschoettel, Dipl.-Ing., Benjamin Griebel, Franz Irlinger and Tim C. Lueth, Technical University of Munich		
4:00p-4:30p	Garden Pavillion	MAI TAI BAR AND NETWORKING		

Thursday, February 9th

TIME	LOCATION	Session 11- Embedding & Fan-Out Packaging Chair: Terry Bowen, TE Connectivity (Retired)		
8:30a-9:00a	Poipu	Future of Embedding and Fan-Out Technologies Rao Tummala, Ph.D., Venky Sundaram, Ph.D., Pulugurtha M. Raj, Ph.D., and Vanessa Smet, Ph.D., Georgia Institute of Technology		
9:00a-9:30a	Poipu	3D IPD on Thru Glass Via Substrate Using Panel Manufacturing Technology for RF Applications Satoru Kuramochi, P.E., Dai Nippon Printing; Hobie Yun, Qualcomm Technologies, Inc.		
9:30a-10:00a	Poipu	Temporary Wafer Bonding - Key Technology for MEMS Devices Dirk Wuensch, Lina Purwin, Lars Büttner, Ronny Martinka, Ina Schubert, Romy Junghans, Mario Baum, Maik Wiemer, and Thomas Otto, Fraunhofer Institute for Electronic Nanosystems		
10:00a-10:15a	Ballroom Foyer	REFRESHMENT BREAK		
		Session 12- Quality & Reliability Chair: Jeff Kennedy, Celestica Inc.		
10:15a-10:45a	Poipu	Computer Tomography From Microelectronics to Assembled Products Keith Bryant, SMT Solutions; Ragnar Vaga, YXLON International		
10:45a-11:15a	Poipu	Conformal Coatings and Their Impact on QFN Reliability Chris Bailey, Ph.D., MBA, University of Greenwich		
11:15a-11:45a	Poipu	AXI Inspection Study with Heavily Shielded Press-Fit Connectors (Impel) Chin Weng Tan, Yoke Hong Tan, Alvinkw Leong, Sreedharan Kelappen Kanaran, Zhen (Jane) Feng, Ph.D., David Geiger, Patrick Tan, YK Chan, Jim Lin, and KT Tan, Flex		
11:45a-12:15p	Poipu	COTS - Radiation Effects Approaches and Considerations Kirsten Weide-Zaage, Ph.D., Philemon Eichin, Chen Chen, Yupeng Zhao, Lifan Zhao, Aymen Mouj bani, Institute of Microelectronic Systems		
		Program Concludes		
6:00p-9:00p	Ocean Cove	LUAU		