Interactive Presentation 1 (Poster)

Dec 3, 2025 3:10pm to 4:40pm

Paper ID	Track	Title	Affiliation	Presenter
100	Advanced Packaging	Device assembly and modelling validation to analyze stress for large iBGA image sensor induced by encapsulant material cure shrinkage	Henkel	Seyedmohammadi, Shahram
112		Basic study on shielded capacitive power transmission (S-CPT) using cast iron electrodes Systems	Kyushu University	Tateishi, Eiichi
114		Robust Deflash Process Consideration on Overmolded Package with Multi Lead Design	NXP Semiconductors	Wan Ahmad, Wan Mohd Alimie
128		Overview for Overlay Metrology Challenges and Solutions in Advance Packaging	KLA	Volkovich, Roie
148		New Tuning Knob for Reducing Bubble-Defect in Electro-Plating Process	Lam Research	Cheng, Ray
190		System Technology Co-Optimization through Simulation for UCIe and HBM3 High-Density Bridges on a Unified 2 µm RDL Platform	Institute of Microelectronics	Svimonishvili, Tengiz
194		Improving Package Saw Quality for QFN Packages Through Surfactant-Assisted Sawing Process and High-Pressure Water Pump Implementation	Nexperia Malaysia Sdn Bhd	Abdul Aziz, Aswafi
204		Modelling and Smart In-situ Monitoring for Wafer-to-Wafer Bonding Mechanism	EV Group	Mühlstätter, Christian
226		Advanced Liquid Cooling for 2.5D ICs: Integrated Top Diamond Heat Spreader with Embedded Liquid Channels	National Taiwan University, Taiwan	Tseng, Chia-Wei
231		Analysis and comparison of different packaging technologies for 79 GHz automotive wave guide radar antennas	Fraunhofer IZM	Tschoban, Christian
297		RF and Digital Heterogenous Integration on 2.5D Si-interposer	Institute of Microelectronics, Singapore	Wai, Leong Ching
324		Unified Roadmap for Scaling AI- NAND/UFS Packages	Micron technology Inc.	Mamun, Md Asaduz Zaman
333		Low-Profile Ka-Band Antenna-in-Package Array with Broadband and High Aperture Efficiency Using HDI Technology	Institute of Microelectronics of the Chinese Academy of Sciences	Zheng, Yuxiang
335		Analysis of Particulate Contamination from UV Tape Residue and Cleaning Process Optimization for Die-to-Wafer Hybrid Bonding	Institute of Microelectronics, Chinese Academy of Sciences	Lian, Ziqi
337		Advanced STCO for Next-Gen Automotive Systems	Fraunhofer IIS/EAS	Heinig, Andy

Interactive Presentation 1 (Poster)

Dec 3, 2025 3:10pm to 4:40pm

Paper ID	Track	Title	Affiliation	Presenter
215	Advanced Optoelectronics & Displays	High Impedance Silicon Mach-Zehnder Modulator for 100 Gbs Optical Links	Institute of Microelectronics, Singapore	Xu Feng, feng
268		Laser-Assisted Bonding with Through-Silicon Alignment for Heterogeneous Integration onto Silicon Photonic Platform	Tampere University	Lepukhov, Evgenii
291		Design of a Pentagonal Frustum-Shaped Gas Chamber for Multi-Gas NDIR Sensing	Central South University	Zheng, Jie
310		Efficient construction of wafer-scale InP/Si and InP/LiNbO3 heterointerfaces via quasi-direct bonding strategy	Institute of Microelectronics, Chinese Academy of Sciences	Kang, Qiushi
257	Assembly and Manufacturing Technology	Dicing Tape Selection and Tape Curing Process Using a Die Size - Based Approach	Nexperia Malaysia Sdn Bhd	Zainal, Mohd Khairul
277		Delamination root cause analysis in leaded package	NXP Malaysia	Chai, Mun Leit
295		Design-for-Manufacturability Risk Assessment of Large Strip Size Lead frame through Simulation Study	Infineon Technologies Asia Pacific Pte Ltd	Rodriguez, Jenelyn
296		Impact of Storage Conditions on Solder Paste Performance in Power Package Assembly	Infineon Technologies Asia Pacific Pte Ltd	Bartolo, Marlon
318		Critical Challenge of IMC Crack-Induced Solderability Failures	PT. Infineon Technologies, Batam	Narayanasamy, Jayaganasan
338		Challenges of RF devices with Mold-first FOWLP	Institute of Microelectronics, Singapore	Soh, Serine
376		Laser Groove Replacement Through Low Stress Mechanical Sawing Optimizations	Nexperia Malaysia Sdn. Bhd	Lee, Wai Wai
383		Array Electrohydrodynamic Cone-jet Atomization Printing for Ultrathin Film Manufacturing	Huazhong University of Science and Technology	Hu, Chao
387		Modeling and Validation of Capillary Underfill Flow in Multi-Chip Modules: From 3D to Hybrid EBG Approaches	CoreTech System	Shen, Leo

Interactive Presentation 1 (Poster)

Dec 3, 2025 3:10pm to 4:40pm

Paper ID	Track	Title	Affiliation	Presenter
120	Emerging Technologies	Study on the Performance Improvement of a 28 GHz One-Sided directional Slot Antenna Through Modification of Floating Metal	Kyushu University	Nakashima, Kenta
159		Structurally Integrated Multimodal Capacitive Tactile Sensor for Proximity and 3D Force Sensing	Central South University	Zhang, Haikun
262		Fabrication Process of Superconductive Through-Si Via for 2.5D Quantum Interposer	Yokohama National University	Otake, Yugi
103	Materials & Processing	Comparison of Mechanical, Thermal and Reliability Properties of Sintered Copper, Sintered Silver and Solder Paste	Chongqing University	DAI, DONGFANG
130		Simulation-Streamlined Epoxy Molding Compound (EMC) Selection	Infineon Technologies Asia Pacific Pte Ltd	Andriani, Yosephine
133		POWDER CHARACTERISTICS’ INFLUENCE ON LEAD FREE SOLDER PASTES’ RHEOLOGICAL BEHAVIOR FOR USE IN JET PRINTING	Inventec Performance Chemicals	Leveneur, Marjorie
134		Fine Powder Solder Paste with Novel Water Soluble Chemistry – an Enabler for Next Generation System-in-Package Assembly	Macdermid Alpha Electronics Solutions India	Shrivastava, Saurabh
152		Numerical Investigation on Mold Flow Characteristics of Power μModule	Central South University	Cao, Danni
207		Optimal Die Bonding Process Parameters for Soft Solder Die Attach Equipment	Shenzhen Liande Automation Equipment Co	Zheng, Jiarui
210		Effect of laser irradiation time on SAC305 solder joints using ENEPIG substrate	Chungbuk National University	Lee, Hyo-Won
216		Characterization of Copper Leadframe for the Non Pressure Silver Sintering Process	Heraeus Materials Singapore Pte. Ltd.	LIU, YU
344		Excellent In-air Sintering Performance of Cu Microparticle Paste Enabling Large-area Cu–Cu Bonding in Power Device and System-level Packaging	South China University of Technology	Zong, Hao-Ze
366		Effect of Glass and Mold Material on Over Molded Glass Wafer Warpage in FOWLP and 2.5D Applications	Institute of Microelectronics	Pan, Manyi
380		Enhanced Plasma Process for Extending Shelf-Life and Improving Interfacial Bonding for Chip-to-Wafer Hybrid Bonding Application	Institute of Microelectronics, Singapore	Yuan Zhen, Derek Chooi
385		Development of Temporary Bonding and Debonding process for hybrid bonding advance packaging	Institute of Microelectronics	Hsiao, Hsiang Yao
107	Electrical Simulations & Characterization	Cost Effective PCB Design with Power and Ground Co-Referencing	Altera	Foo, Loke Yip
377		Theoretical Model and Simulation of Delamination in Plastic-Encapsulated Devices	Beihang University	You, Wenchao

Interactive Presentation 2 (Poster)

Dec 4, 2025 2:00pm to 3:30pm

Paper ID	Track	Title	Affiliation	Presenter
123	Interconnection Technologies	Hybrid Evaluation of Pure Argon Plasma Treatment for Enhanced Wire Bonding and Manufacturing Efficiency in Microelectronics	onsemi Carmona	PELINGO, JORELL
245		Low-Temperature Pressure-Assisted Sintering of Oxidation-Resistant Cu Paste for Large-Area Interconnects in Power Electronics Packaging	Shenzhen Advanced Joining Technology Co., LTD.	Li, Junjie
278		Design strategies for tuning of copper dishing requirements for System-on-Interposer architectures	Institute of Microelectronics, Singapore	Ong, Edward Yong Xi
288		Thick 4 mils Heavy Cu Wire Ball Bonding Feasibility Study	ST MICROELECTRONICS	DE JESUS, EDSEL
309		Improved Copper Diffusion for Low-Temperature Hybrid Bonding Using (111) Surface Orientation	Hanbat National University	An, Seong Min
313		Fabrication of Parylene-Aluminium Redistribution Layer interposer for sensor packaging applications	Fraunhofer ENAS	Cirulis, Imants
330		Atomistic Insights into Ag–Ti Supersaturated Solid Solution Mechanics and Interfacial Bonding Behaviours for High-Density Interconnects	Beijing Institute of Technology	Liu, Sichen
331		Direct die-to-wafer bonding on Thinn interposers: Wafer reconstruction and Back side nano-topography evaluation.	imec	Jedidi, Nader
339		Sub-200 °C Gold–Gold Bonding for Reliable 3D Heterogeneous Integration	Indian Institute of Science, Bangalore	Sharma, Nishant
346		Nanotwin Ag-Assisted Cu-Clip Bonding for Power Module Packaging	National Yang Ming Chiao Tung University, Taiwan	Dao, Thi Minh Anh
360		Simulation and validation of mass transfer capability and electric field distribution for wafer-level TGV copper electroplating process development	Xiamen University	Xie, Yihan
364		ANN-Based Surrogate Modelling Framework for Repeater Optimization in Multi-Layer Graphene Nanoribbon Interconnects under Process Variation	Indian Institute of Information Technology & Management	Ranjan, Pinku
160		Comparative Performance Evaluation of Copper Wire Compositions under Grade 0 Reliability Conditions	onsemi Philippines	Manalo, Ginbert

Interactive Presentation 2 (Poster)

Dec 4, 2025 2:00pm to 3:30pm

Paper ID	Track	Title	Affiliation	Presenter
258	Mechanical Simulation & Characterization	Corner fill encapsulation process with varying dispensing paths	Sandisk Storage Malaysia Sdn Bhd	Ng, Fei Chong
345		Thermo-mechanical coupling simulation study of the fatigue and fracture behaviour of Cu traces and Cu/PI interfaces in 2.5D RDL interposer package for heterogenous integration	South China University of Technology	Chen, Jia-Ao
108	Quality, Reliability & Failure Analysis	TEM/EDX/EELS analysis the thermal growth of Cu oxide layer under different surface medias	Institute of Microelectronics, Singapore	Tang, Lei Jun
145		Study of Passivation Stress and Via Delamination in WLCSP	STMicroelectronics	Chen, Yong
171		Induced voltage in different box types while charged object in front of the box is grounded	Kogakuin University	Ichikawa, Norimitsu
198		Considering component placement and influence of other components vibration fatigue life evaluation of automotive BGA parts	YOKOHAMA National University	Mori, Tomoki
203		A Study on the Reliability of Microvia in the Printed Circuit Boards	Yokohama National University	NAMBA, Haruhito
205		The effects and mechanism on bump reliability of wafer surface protection by Bump Support Film	Lintec corporation	Shinomiya, Keisuke
214		Flexural Properties of Sn-Based Solder Alloy and Reliability of Its Joint	Heraeus Materials Singapore	Tan, Tze Qing
235		Location- material dependence of shear fracture characteristics of EMC-Si interface fabricated by wafer level molding process	Institute of Microelectronics of the Chinese Academy of Sciences	Zhao, Jingyi
340		Research on Moisture Barrier Technology and Reliability Evaluation of Flip-chip Circuit with Organic Substrate	Beijing Mxtronics Corporation	Zang, Jingwen
110	Smart Manufacturing and Equipment Tech	Operational Efficiency Analytical Tool with Machine Data Integration	Micron Semiconductor Malaysia	Lim, Jian Liang
184		AI-Powered Super-Resolution for Scalable and Efficient 3D X-Ray Inspection of 3D-Stacked HBMs	Institute for Infocomm Research (I2R)	Yang, Xulei
290		Application of Deep Learning in 1 µm TSV Process Development	Institute of Microelectronics, Singapore	Li, Mengyang
292		Unlocking Test Handler Health Insight with Advanced Analytic	INFINEON	Lestari, Yuli
238	Electrical Simulations & Characterization	Electrical Modeling and Analysis of Hybrid Bonding Vias with Misalignment and Void Defects	Institute of Microelectronics, Singapore	Shanmugam Bhaskar, Vignesh
197		Characterization of Press-Fit Pin Insertion Behavior in Power Inverter Modules for Vehicles	Yokohama National University	Mori, Sosuke

Interactive Presentation 2 (Poster)

Dec 4, 2025 2:00pm to 3:30pm

Paper ID	Track	Title	Affiliation	Presenter
124	Thermal Management and Characterization	PDMS Microchannels for Silicon Chip Cooling	Rajalakshmi Engineering College	LAKSHMINARAYANAN, SUJATHA
192		Two-phase liquid cooling with backside-embedded micro-pin fins for high-power microelectronics	Institute of Microelectronics, Singapore	Feng, Huicheng
225		Advanced Liquid Cooling for 2.5D ICs: Integrated Top Diamond Heat Spreader with Embedded Liquid Channels	National Taiwan University, Taiwan	Tseng, Chia-Wei
248		Design and characterization of direct-to-die single phase liquid cooling with micro-jet array for high performance computing chip	Xiamen University	Huang, Jiapeng
259		Parametric Analysis of Diamond-Based Lateral Heat Extraction in 3D Heterogeneous Electronic Systems	Institute of Microelectronics, Singapore	He, Bin
325		Thermal management verification platform for chiplet functional unit	The Institute of Microelectronics of the Chinese Academy of Sciences	Ye, Yuxin
342		An Equivalent Modelling and Mesh Reusing Technique for Electro-Thermally Coupled Simulation of Stacked chips in 3D Packaging	University of Electronic Science and Technology of China	Liu, Cong
357		Active test wafer for thermal characterization	Fraunhofer IIS/EAS	Heinig, Andy
121	TSV/Wafer Level Packaging	The Knowledge of Nodular Defect Prevention in Tin (Tin) -Silver (Ag) Electroplating Process	Lam Research	Chen, Zack
181		Simulation and Optimization of Defects in Silicon-Based Wet Etching	Wuhan University	Chen, Zhiwen
183		Mitigation of TSV Bottom Cu Delamination via Liner Outgassing Suppression	Lam Research	Yang, Huihui
230		Efficient Thermal Design of Through-Silicon-Via (TSV) Based 3D Packaging for Scalable Quantum Computing Systems	Indian Institute of Technology Hyderabad	Bonam, Satish
284		High-Aspect-Ratio TSiCV Etch Development in 4H-SiC for RF Interposer Applications	Institute of Microelectronics, Singapore	NG, YONG CHYN
341		Wafer-to-Wafer Hybrid Bonding and Bonding Energy Measurement: Challenges and Optimization	Institute of Microelectronics, Singapore	JI, Hongmiao