

Preliminary Program Overview, rev1.2 (Subject to updates and changes)

	DAY 1: December 2, 2025
07:30am - 08:45am	Registration
Venue	West Ballroom
08:45am - 09:00am	Opening Ceremony & Welcome Speech
09:00am - 09:45am	Keynote 1: Dr Ashay Singh, VP, Micron Technology
09:45am - 10:30am	Keynote 2: Audrey Charles, SVP, Lam Research
10:30am - 11:00am	30min Coffee Break @ West Ballroom Foyer
11:00am - 12:30pm	Panel Session 1: TBC
12:30pm - 12:50pm	Advanced Packaging Solutions Presentation: by Lam Research (Diamond Sponsor)
Venue	West Ballroom Foyer
12:50pm - 1:50pm	Lunch @ West Ballroom Foyer
Venue	West Ballroom
1:50pm - 2:35pm	Keynote 3: Dr Radha Nagaranjan, SVP and CTO, Marvell
2:35pm - 3:20pm	Keynote 4: Pax Wang, TD Director, UMC
3:20pm - 3:50pm	30min Coffee Break @ West Ballroom Foyer
3:50pm - 4:05pm	Products Presentation: by Applied Materials (Platinum Sponsor)
4:05pm - 4:20pm	Products Presentation: by KLA Tenco (Platinum Sponsor)
4:20pm - 5:50pm	Panel Session 2: Metrology and Test Readiness for Heterogeneous Integration
5:50pm - 6:15pm	Welcome Reception @ outside West Ballroom

	DAY 2: December 3, 2025					
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2
	PDC1	PDC2	PDC3	PDC4	PDC5	PDC6
08:30am - 10:00am	Advanced Packaging for Chiplets, Heterogenous Integration and CPO Dr John Lau (Unimicron)	Photonic Components and Packaging Technologies for Data Center, Communications, Sensing and Displays Dr Torsten Wipiejewski (Huawei)	Advanced Packaging for MEMS and Sensors Prof Horst Theuss (Infineon)	Current and Future Challenges and Solutions in Al & HPC System and Thermal Management Dr Gamal Refai-Ahmed (AMD)	Overview of Characterization Techniques for 3D HI Circuit Packaging Prof Ali Shakouri (Purdue University)	Design-on Simulation Technology for Reliability Prediction of AP Prof K.N. Chiang (National Tsing Hua University)
10:00am - 10:30am			30min Coffee Break outsi	de Exhibition Hall (Leo 1-4)		
10:30am - 12:00pm	PDC1 (con't)	PDC2 (con't)	PDC3 (con't)	PDC4 (con't)	PDC5 (con't)	PDC6 (con't)
12:00pm - 1:15pm			EPS Lunche	on @ Vigro1-4		
1:15pm - 2:25pm			Technology Innovation Showcase - Ses	ssion 1 (70 min) Quiz & Prizes Included		
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2
2:25pm - 3:10pm	Materials and Processing 1	TSV/Wafer Level Packaging 1	Mechanical Simulation & Characterization 1	Interconnection Technologies 1	Thermal Management and Characterization 1	Emerging Technologies
	P372 (111)-oriented nanotwinned/nanograined bilayer Cu for post-Q-time low temperature Cu-Cu bonding	P168 Thermally Reliable Through Glass Via Filling with Ni-Fe Alloy for Advanced 3D Packaging	P172 Thin Fan-Out Package Characterization and Evaluation	P266 Surface Treatment for Wafer Bonding using Atmospheric Vapor Plasma Technology	P165 Novel TIM1 paste for Enhanced Thermal Management	P326 3D Surface Ion Trap Process Development for Quantum Applications
	P167 Enhancing Wafer Bonding Strength via Surface and Dielectric Modification Using Plasma Activation Process	P319 RDL-first FOWLP Development for III-V Semiconductor Chips in RF Applications	P255 Board level solder reliability and package stress for TSiCV UBM/bump IC package design	P185 Study of Extremely Low Temperature Organic Hybrid Bonding with Grain Engineered Cu	P142 PIV-Based Study of Heat n Dissipation and Clogging phenomenon of TiO ₂ Nanofluid in Microchannels	P161 2.5D Cryogenic Packaging for Advanced Quantum Processors
	P382 Water Vapor Permeation in Low- Temperature Processable Polyimide Materials for Reliable Polymer Hybrid Bonding	P302 Mitigating Connected PAD Corrosion in Hybrid Bonding	P156 Experimental and numerical analysis of a fan-out BGA Chip package reliabilities under drop test loads	P355 Bond line thickness stability of Cu sintering for automotive power module packaging		P208 Wafer-level Processes for the Manufacturing of Encapsulated Flexible Polymer-Based Implants
3:10pm - 4:40pm		Inte	ractive Presentation (Poster), Exhibition an	nd Coffee Break outside Exhibition Hall (Lee	o 1-4)	
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2
4:40pm -5:40pm	Materials and Processing 2	Advanced Packaging 1	Mechanical Simulation & Characterization 2	Interconnection Technologies 2	Thermal Management and Characterization 2	Assembly and Manufacturing Technology 1
	P343 Chip Stacking: Impact of Chip Spacing in C2W hybrid bonding on Temporary Bonding and Debonding	P303 Using WGAN-Based Data Augmentation Machine Learning Algorithm for Estimating the Equivalent Material Properties	P241 Electric-Thermal Coupled Transient Simulation for a Schottky Diode with Temperature Dependent Resistivity of Epitaxial Layer	P188 A Novel Interface Characterization Technique for Hybrid Bonding Process Optimization	P251 DIMM Thermal Performance Enhancement with Heat Spreader and Advanced Cooling Solutions	P201 High-Density Interconnect RDL- FPC Hybrid Substrate for Compact SiP Packaging
	P246 Addressing CMP Process Challenges on Temporarily Bonded Wafers for Chip-to-Wafer Hybrid Bonding Applications	P354 Innovation and Efficiency in 3D Packaging Enabled by Optimized Integration Processes	P332 Prediction of Void-induced Crack Propagation within Underfill using the Meshless Material Point Method	P174 Gas-Free & Nano TiO2-Coated Ag Bonding Wire for Replacing Au Wire	P223 CFD and Surrogate Model-Driven Optimization of Two-Phase Immersion Cooling Configurations	P365 Novel UV-USP Laser Grooving and Plasma Dicing Separation Schemes for Next Generation Advanced Packaging
	P356 Analysis of SiO ₂ surface chemistry by quasi-in situ XPS during N ₂ plasma activation for SiO ₂ /SiO ₂ bonding		P271 Enhancing Predictive Accuracy of Warpage and Reliability for Advanced Packages by Modelling Accurate Poisson's Ratio in Finite Element Analysis	Interconnect Fabrication for	P153 Thermal Design and Power Dissipation of Advanced Package with Heterogenous Integration	P173 Is Flash Lamp Annealing a Relevant Wafer Debonding Technique?
	P362 Applicability of Both-Sided Flash Lamp Annealing (FLA) Method on Heat Treatment Cu Plating Thin Film and Low Dielectric Resin Films	P102 A Packaging Structure for an Antenna-in-Package Module	P294 Optimization of Warpage and Mechanical Properties for Stacked SIP Package	P144 Interfacial Reactions of Biln and SnBi Solders React with Cu Substrate		P301 Cost efficient Infrared Laser debonding technology enabled by Si carrier reuse
05:40pm - 06:45pm	EPTC Sponsors & Exhibitors Networking Cocktail Session – Co-Hosted with Lam Research (Diamond Sponsor)					

	DAY 3: December 4, 2025 (AM)						
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2	
8:45am -9:45am	TSV/Wafer Level Packaging 2	Smart Manufacturing and Equipment Technology 1	Mechanical Simulation & Characterization 3	Quality, Reliability & Failure Analysis 1	Advanced Packaging 2	Assembly and Manufacturing Technology 2	
	Scalable Density in Embedded Bridge Die			Correcion on Al Bondando and Wafer	P312 Characterization of PVD Seed Layer Contact Resistance in 2.0 to 20.0 μm Vias	P273 Selective Post-Soldering Volume Adjustment for Improved Co-Planarity of C4 Bump Interfaces	
	Capacitar Process Integration	P263 Real-Time 3D Reconstruction for Wire Bonding Using Multi-View Projection and EM Polynomial Modelling	P233 A Shock Vibration Calculation Method Considering Viscoplastic Behavior of Packaging Systems		P150 112 Gbps SERDES Channel Design with 2.5D Sub-Micron BEOL Interconnect	P178 Aerosol Jet Printing of a Copper Nanoparticle Ink by Controlling the Wetness of Aerosols	
	(SCD) Metrology for Copper Dishing Control		P113 Delamination Effect Investigations	Polypropylene in High-Reliability Structural	P151 Advanced Bevel Deposition for Enhanced Yield and Cost Efficiency in Wafer-Level Bonding	P162 Heat Release Tape Characterization for Panel Level Packaging	
	conduction (PSC) in SOI substrates for 3D-	Prediction with a Physics-Informed	P368 Feasibility Study of Stacked Sub-THz Band AiP Modules Based on Warpage and Stress Analysis	P219 Nanoindentation tests and constitutive study of sintered nano-silver	P307 Physics-Informed Graph Convolutional Neural Network for Scalable, and Accurate Thermal Analysis of 2.5D Chiplet-based Systems	P175 Reliability Evaluations of Pb-free Solder Joint Formed Using Sn-Ag-Cu solder ball and Sn-Bi-Ag solder paste	
9:45am -10:30am			45min Coffee Break outsid	e Exhibition Hall (Leo 1-4)			
40.00	Invited Talk 1: Dr. Dielacher Bernd (EVG)	Invited Talk 2: Prof. Harald Kuhn (Fraunhofer ENAS)	Invited Talk 3: (TBC)	Invited Talk 4: Inohara Masahiro (KIOXIA)	Invited Talk 5: Dr Mushuan Chan (SPIL)	Invited Talk 6: Dr Sajay BG (IME)	
10:30am -11:00am	The Critical Role of Wafer Bonding in Next- Generation Interconnect Scaling	Innovation and Steps in Hetero-Integration		Accelerating the Evolution of NAND Flash Memory with Bonding Technologies	High Layer RDL Process Technology for Heterogenous Integration Package	Heterogeneously Integrated Wafer-Level Processed CPO Enginers for Next Gen Al/ML Data Centers	
Venue	Vigro 1-4						
11:00am - 12:10pm	Technology Innovation Showcase Session 2 (70 min) Quiz & Prizes Included						
Venue	Vigro 1-4						
12:10pm -1:15pm	EPTC Luncheon						

	DAY 3: December 4, 2025 (PM)						
12:00pm -1:15pm	EPTC Luncheon						
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2	
1:15pm -2:00pm	Materials and Processing 3	Thermal Management and Characterization 3	Mechanical Simulation & Characterization 4	Interconnection Technologies 3	Advanced Packaging 3	Electrical Simulations & Characterization	
	0.5Cu solder joints with Alumina layer	P191 Magnetohydrodynamic Liquid Cooling Embedded in PCBs for High-power Electronics	P252 Evaluating Dummy Die Sizes and Compound Adjustments to reduce Wafer Warpage in FOEB-T Packaging.	P202 Comparative wear-out study and characterization methods for Pure and Alloyed Copper wires	P320 Ka-Band Ultra-Short Die-to-Antenna Interconnect Enabled by Embedded Glass Fan-Out Packaging		
	solders on C.I. Substrates under multiple	P247 Thermal Performance of MEMS Cross-flow Heat Exchangers Subjected to External Heat Transfer	P352 Statistical Evaluation of Bond Strength Variation in Hybrid Bonding Interfaces	P261 Microstructure Evaluation of Engineered Cu for Low-Temperature Cu-Cu Hybrid Bonding	P227 development of a Wideband Energy Harvesting Circuit Utilizing Terrestrial Digital Broadcast Signals	P169 Characteristics in the quasi-millimeter wave band of planar transmission lines formed on flexible substrates	
		P270 Numerical Investigation of Embedded Micro-Pin Fin Two-Phase Liquid Cooling for Dual-Chip Stacks in HPC & Al Applications	Plasticity Finite Element Model of SAC305	P317 Toward lifetime prediction under variable load conditions in power electronics	P146 Optimization of Shielded Capacitive Power Transfer (S-CPT) Systems Using Slotted Electrodes		
2:00pm - 3:30pm		In	teractive Presentation (Poster), Exhibition an	d Coffee Break outside Exhibition Hall (Leo 1	-4)		
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2	
3:30pm -4:15pm	Interconnection Technologies 4	Mechanical Simulation & Characterization 5	Advanced Packaging 4	Assembly and Manufacturing Technology 3	Thermal Management and Characterization 4	Materials and Processing 4	
	Litra fine Pitch Microhumn	P369 Characterization and Modelling of Inelastic Behavior of Epoxy Molding Compounds	P367 Low Temperature Post Bond Anneal for Hybrid Bonding enabled by Interfacial (IF) Metal Capping – An Assessment of Reliability	P196 Growth Behaviour of Intermetallic Compounds in Cu-Sn3.5Ag Solder Joints with Different furnace cooling rate	P371 Direct-Bonded Manifold-Jet- Impingement Cooling for High-Performance Al Chips	P379 Enhancing Yield Performance in Chip- to-Wafer Hybrid Bonding in Advanced Packaging	
	Approach utilizing electroplated Aluminium	P349 Real-time Effective Mechanical Property Characterization of Redistribution Layer (RDL) for Chiplet Integration	P374 WireBond Challenges of Copper Clip for Multi-Die Controller MOSFET Package	P158 Hybrid Evaluation of Pure Argon Plasma Treatment for Enhanced Wire Bonding and Manufacturing Efficiency in Microelectronics	P334 High-Temperature Pressure Mapping of TIM Interfaces for Improved Thermal Simulation Accuracy	P234 Study on Backside Metallization for the S-SWIFT(TM) Package	
	lifetime under accelerated temperature	P305 StressScore for benchmarking AI generated stress image of advanced packaging	P265 Characterization on Fan-Out Heterogeneous Integration Packaging for Premium Smartphone	P131 Impact Of Modified Layers Due to Stealth Dicing Process on The Die Strength	P222 Operando Thermal Analysis of CPU and PCB using a Pixel-level Emissivity Correction Method	P189 Study of Coverage Decay Mechanism of Liquid Metal Filler TIM for Advanced Package Application	
Venue			Vign	o 1-4			
4:15pm - 5:25pm			Technology Innovation Showcase Ses	sion 3 (70 min) Quiz & Prizes Included			
5:25pm - 6:10pm	Interconnection Technologies 5	TSV/Wafer Level Packaging 3	Materials and Processing 5	Assembly and Manufacturing Technology 4	Quality, Reliability & Failure Analysis 3	Thermal Management and Characterization 5	
	High-Performance Copper Interconnects for	P105 Analysis of Cu and dielectric layer interfacial delamination in chip redistribution layer	P116 Study on Microstructural Evolution Mechanisms of Amorphous SiO2 in Through Glass Via Wafer during Thinning	P315 Automated In-Line Metrology of Advanced Package Interconnections using a High-Speed 3D X-ray System	P115 Defect Z-depth Determination in 2.5D IC Using Magnetic Field Imaging	P163 Thermal Performance Enhancement of Stacked Packages using Silicon-Based Heat Spreading Die	
		P126 Mitigation of Cu Nodule Formation in High Open Area Products for Electroplated Cu RDL Applications		P224 Mass Transfer solution for Micro-LEDs based displays	P200 In-Situ Package Level Relative Humidity Measurement using Wet-Bulb and Dry-Bulb Temperatures	P381 Solid-State On-Chip Thermal Management Using Micro-Thermoelectric Devices	
	Expansion of Cu Pads with Varied Grain	P256 Surface Activation and Bonding Mechanisms of SiCN and TEOS Dielectrics for Low-Temperature Hybrid Bonding	P316 Cost-Effective Wafer Level Micro Bumping Solution for Advanced Packaging		P358 Al-empowered 3D X-ray analysis of solder joint cracking after board level vibration testing	P322 Thermal Sensitivity Analysis of SoIC Face-to-Back Stacking Using Foundation Models for Physics	
06:15pm - 08:30pm	EPTC Banquet Dinner						

	DAY 4: December 5, 2025 (AM)						
Venue		Gemini 2					
8:45am – 10:00am		Technology Innovation Showcase Session 4 (75 min) Quiz & Prizes Included					
10:00am - 11:00am		60r	nin Coffee Break outside Exhibition Hall (Leo	1-4)			
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2	
	Invited Talk 7: Dr Kathy Yen (TSMC)	Invited Talk 8: Dr Takenori Fujiwara (Toray Industries)	Invited Talk 9: David Gani (STMicro)	Invited Talk 10: Dr Tan Yik Yee (YOLE)	Invited Talk 11: Jonathan Abdilla (BESI)	Invited Talk 12: Dr Zhao Yi (Zhuhai Silicon Chip Technology)	
11:00am -11:30am	From Cloub AI to Edge AI: Driving Innovation with Advanced Packaging	Polymer Bonding Technology for Semiconductor Advanced Packaging	Challenges and Advantages in Panel Level Packaging	Al is Accelerating the Advanced Packaging	Hybrid Bonding and Fluxless TCB: Defining the Sub 10um Interconnect Roadmap for 3D HI	Advanced Packaging EDA's New Paradigm: Collaborative Innovation Revolution for Design-Simulation-Verification in the 2.5D/3D Era	
	Advanced Packaging 6	Smart Manufacturing and Equipment Technology 3	Mechanical Simulation & Characterization 6	Interconnection Technologies 6	Quality, Reliability & Failure Analysis 4	Materials and Processing 6	
	and Class IDD Tashnalagy for EC	P193 Al-driven Pixel-Level Defect Localization using Magnetic Current Images	P321 Degradation Mechanism of Frequency	P143 UV-Assisted Fluxless Thermal- Compression Bonding Under Ambient Conditions	P132 Anomalyspy: A Generative Defect Localization in Semiconductor Packages, with X-ray Microscopy	P240 Copper Pillar Bump FCBGA Underfill Process Characterization for Automotive Application	
11:45am -12::00pm		P236 Research on Intelligent Prediction of 3D-IC Packaging Injection Molding Based on Machine Learning	Scalable Eval Routine for Lifetime	P244 Characterization of Fine Line Width/Spacing RF Interconnects for Co- Packaged Optics with High I/O Density	P180 Cu/SiCN wafer-to-wafer hybrid bonding interface reliability down to 400 nm pitch	P212 Enhanced Reliability of Large BGA Assemblies for Al Server and HPC Application	
12:00pm- 12:15pm	Wafer assembly with HPC and Photonics	Automated 3D X-ray Defect Detection from		Reliability of CQFP Packages under	P375 Investigations on the Mutual Effects of Electromigration and Thermal Fatigue failures of TSV Interconnects	P281 Development of an Epoxy Lid Adhesive to Improve Thermal Reliability in Semiconductor Packages	
Venue	Vigro 1-4						
12:15pm -1:30pm	Conference Lunch						

	DAY 4: December 5, 2025 (PM)							
12:15pm -1:30pm	Conference Lunch							
Venue	Aquarius 1	Aquarius 2	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2		
	Advanced Packaging 7	Materials and Processing 7	ТВС	Smart Manufacturing and Equipment Technology 3	Advanced Optoelectronics and Displays	Mochanical Simulation &		
	P260 Demonstration of Integrated Passive Devices in Glass substrate using TGV process		P323 Backside Metal Interconnect for High Performance RF Interposer	P348 nferring Wire Length and Depth from Magnetic Field Images via Deep-Spatial Physics Informed Model	P267 Assembly of optical micro-ring resonator-based ultrasound sensor for photoacoustic imaging	P139 Key Insights into Design for Reliability of 3D NAND Packages in Solid-State Drive		
1:45nm - 2:00nm	P154 Residue Free TaN Etch Method for MIM Capacitor in Advanced Packaging	P221 High-Performance Graphene Coatings for Superior Thermal and Mechanical Properties in Electronic Packaging Enclosures		P213 Device-to-Package Electrothermal Performance Prediction of Power MOSFETs via Coupled Iterative Dual- Artificial Neural Networks	P104 High Coupling Efficiency Adhesive for Photonic Packaging	P373 A novel wafer warpage numerical model considering further shrinkage of epoxy molding compound		
2:00pm - 2:15pm	Invited Talk 13 Fu Chao (WinTechNano)	Invited Talk 14 Hidenori Abe (Resonac)	Invited Talk 15: Dr Min Woo Rhee (Samsung)	P209 Thermal- and Wirelength-Aware Chiplet Placement in 2.5D Systems Through Multi-Agent Reinforcement Learning	P253 2.5D PIC Photonic Interposer Engine for Next Generation Photonic Link CPO of High-Performance Computing and Data Communications	P127 Development of Warpage Predictive Models using Physics-Driven Simulation		
2:15pm - 2:30pm	Labless Enable Effective FA of Electronic Packages through Scientific Approach	Advanced Packaging Materials Innovation through Co-Creative Activities and Trends in Advanced Packaging Processes	Understanding of Hybrid Bonding Mechanism by Utilizing Molecular Dynamics Approach	P264 Generative Al-Powered Defect Detection for 3D X-ray Microscopy Scans of High Bandwith Memory Bumps	P206 An Integrated Computational Materials Engineering approach for Anisotropic Conductive Films	P239 Thermal and mechanical properties optimization of TGV interposer for 2.5D integrated transceiver		
2:30pm – 3:00pm	30min Coffee Break outside Exhibition Hall (Leo 1-4)							
Venue		Aquarius 1, 2 and 3 (combined rooms)		Aquarius 4	Gemini 1	Gemini 2		
				Advanced Packaging 8	Quality, Reliability & Failure Analysis 2	Materials and Processing 8		
3:00pm - 3:30pm	•	eous Integration Roadmap (HIF	-,	P170 Development of Embedded Bridge Die interposer Using Fan-Out Packaging for Heterogeneous Integration of NPUs and HBMs		P363 Comparative Evaluation of FCVA and High-Current Arc Deposited ta-C Films for Hermetic Encapsulation		
		s - Design and Manufacturing of Opening: Kitty Pearsall	·	P287 HI of High-Performance Compute, Memory and Photonic Engine Chiplets on Large Molded Interposer package	P276 A Modified Test Vehicle Incorporating DNP-Induced Strain Gradients for Single- Specimen Fatigue Life Assessment of Solder Joints	P118 Enhancing Electrochemical Migration Resistance of Sintered Silver by Ceria Additives for Die Attachment Applications		
3:30pm - 3:45pm	Design – Ph Manufacturabi	facturability of > 1 kW: Gamal Re notonics: Amr S Helmy (Universit lity – HBI: Loke Yuan Wong (Ap	ty of Toronto) plied Materials)	P378 MDQFN™: Panel-Level QFN for Scalable, Cost-Effective Semiconductor Packaging	P147 Correlation Between Thermal Cycling Ramp Rates and its Respective Solder Joint Reliability	P117 Study on Solder Core Ball Using Sn-Bi Plating for Low-Temperature Bonding		
3:45pm - 4:00pm		Manufacturability – Nelson Fan (ASMPT) Manufacturability – CPO (IME, A*STAR)			TBC	P384 Development and Monitoring of Gold Electroplating Process on 300mm Wafer Level		
4:00pm - 4:15pm	Round Table Discussion "Why HBI/CPO HVM Adaption is in Slower Pace Despite all the Buzz?" Moderator: Wong Shaw Fong (Intel)							
4:15pm - 4:30pm								
4:30pm – 5:00pm								

Closing Ceremony and Lucky Draw @ Aquarius 1, 2 and 3 (combined rooms)

5:10pm - 5:30pm