MiNaPAD Forum 2023

10th Micro/Nano-Electronics Packaging and Assembly, Design and Manufacturing Forum

WTC GRENOBLE France

June 7th - 8th

EXHIBITION & CONFERENCES

WORLD TRADE CENTER
CHAMBRE DE COMMERCE & D'INDUSTRIE DE GRENOBLE

Organized by
IMAPS - International Microelectronics Assembly and Packaging Society
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Wednesday June 7th

8h45 Welcome to MiNaPAD

9h00 Opening by Jean-Marc YANNOU (Auditorium)

9h30 Keynote: Laurent HERARD (ST Microelectronics – BEMT R&D Manager)
Packaging innovation – A key enabler for future mobility

10h15 – 10h40 Exhibition Opening (Exhibition Hall) / Coffee break sponsored by

SESSION A: Wafer Level Packaging & Flip Chip (Auditorium)

10h45 Advanced vertical interconnections for fan-out wafer level packaging applications
(Aurelia Plihon / CEA-Leti - France)

11h15 Advanced Package Platform VIPACK : FOSiP
(Chin-Cheng Kuo /ASE group - Taiwan)

11h45 Packaging of a 25 flip chips module on large dimension AlN ceramic substrate keeping low dead areas and tight planarity
(Sarah Renault /CEA-Leti – France)

12h15 Fabrication and characterization of a 2 layers face-to-back test vehicle with high density TSV
(Jerzy-Javier Suarez-Berru / CEA-Leti - France)

SESSION B: Characterization & Reliability (Mont Blanc)

Comparative study on electrical performance of wire-bonded BGA packages using non-plating line vs etch-back technology
(Damian Halicki / ST Microelectronics - Italy)

Comparative study of thermal fatigue life of polymer core solder balls (PCSB) and SAC solder balls in BGA interconnections
(I. Malkorra / ESME - France)

Thermal characteristic study of epoxy molding compound with different filler composition
(Bo Yu Huang / ASE group - Taiwan)

Finite elements analysis of solder joints during thermal shock tests correlation with dye penetration
(Khalil Maarouf / VALEO - France)

12h45 – 13h35 Lunch (Exhibition Hall) sponsored by

SESSION C: Interconnections (Auditorium)

13h40 The study of pure Cu and Pd coated Cu wire-bonding on nano-twinned Cu pad/finger
(Erh-Ju Lin / ASE group - Taiwan)

14h10 Cu second bond response on thin silver pre-plated leadframe packages
(Mirko Alesi / ST Microelectronics - Italy)

14h40 Next generation lead-free solder paste for advanced packages
(B. Senthil Kumar / HERAEUS - Germany)

15h10 Multiphase full wave system
(Jean-Christophe Riou / SAFRAN - France)

SESSION D: MEMs & Optical Packages (Mont Blanc)

Test on package: design and manufacturing of package aimed to electromechanical characterization of MEMS structures
(Marco Del Sarto / ST Microelectronics – Italy)

3D silicon photonic interposer process integration for chiplet based 3D systems
(Damien Saint-Patrice / CEA-Leti - France)

Wafer level optical package for ambient light sensor for mobile and wearable applications with integrated multi-lens array
(Niek van Haare / BESI - Netherlands)

3D heterogeneous integration of meta surface lens in an optical package
(Patrick Laurent / ST Microelectronics - France)

15h40 – 16h00 Exhibition / Coffee break sponsored by

SESSION E: Panel Session
(Auditorium)

16h05 Writing Invention Disclosures to Optimize Patent Value in Europe and the U.S
(Richard P. Gilly / Archer & Greiner P.C. - USA)

16h30 Advanced packaging technology & market trends
(Bilal Hachemi / YOLE Developments - France)

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16h55 **Round Table: The Reindustrialization of Semiconductor Packaging in Europe in the context of the EU Chips Act**

Moderator: BOULAY Sanae (NXP) and De LANGLADE Renaud (EPOSS)
Speakers: (NXP), ()STM, YANNOU Jean-Marc (ASE Europe), David HEIN (EGIDE), (European Commission)

18h00

18h30 **Social Event : Château de la Commanderie** **Sponsored by**

18h30-19h00: Transportation by FAURE Bus from WTC conference

19h00-20h00: Appetizers & Music by Alpes concerts

20h00: Dinner

22h30: Return to WTC conference by FAURE Bus

Overview Château de la Commanderie (38320 EYBENS)

Thursday June 8th

8h30 - Opening exhibition and conferences

	Session F: Encapsulation (Auditorium)	Session G: BGA manufacturing (Mont Blanc)
08h45	The phenomenon of creep and overflow in gel dispense process **(Shih Kun Lo / ASE group - Taiwan)**	Advanced IC substrates - challenges in manufacturing and supply chain **(Daniel Schulze / DYCONEX - Switzerland)**
09h15	Enabling semiconductor packaging materials for advanced flip-chip and heterogeneous integration **(Ruud de Wit / HENKEL - Netherland)**	Fabrication and characterization of soft polymer core solder balls (PCSB) for BGA interconnections **(I. Malkorra / ESME - France)**

9h50 Keynote: Pascal OBERNDORFF (NXP – Head of Package Core Technology)
Title

10h30 – 10h50 Exhibition & **Coffee break (Exhibition Hall) sponsored by**

	Session H: Manufacturing - Plasma (Auditorium)	Session I: Manufacturing - Equipment's (Mont Blanc)
10h55	Panasonic plasma cleaning technology and predictive maintenance by using plasma monitor function **(James Weber / PANASONIC - Germany)**	Advanced laser grooving and dicing to enable high quality separation of next generation thin semiconductor devices **(Gerald Klug / DISCO – Germany)**
11h25	Cleaning of silicone and hydrocarbon contact residue using atmospheric plasma **(Daniel Pascual / ONTOS Equipment Systems – USA)**	Direct writing technologies for interconnection in electronic packaging **(Elodie Pereira / CTTC - France)**
11h55	Improving CCP chamber-plasma-cleaning performance using plasma light emission (OES) analysis data **(Jong Won Oh / VISION Semicon – Republic of Korea)**	An innovative contactless technology for high resolution, high speed, conductive & dielectric materials deposition **(Stéphane Etienne / I-O-TECH, Israel)**

12h25 – 13h30 Lunch & Exhibition (Exhibition Hall) sponsored by

Session J: Advanced Interconnections
(Auditorium)

13h35 Development of stretchable and removable electrical interconnection solution for ultra-thin electronic components
(Auriane Despax-Ferreres / CEA-LITEN - France)

14h05 High density interconnect above active CMOS structures utilizing optimized klettwelding of nanowires
(Andreas Kramer / TU Darmstadt - Germany)

14h35 The failure mechanism of µ-CuP employed in sensor packages
(Erh-Juh Lin / ASE group - Taiwan)

15h05 Hybrid in-mold electronics process towards novel 3d packaging of components and systems
(Philippe Lombard / University of Lyon - France)

15h35 Closing by Jean-Marc YANNOU (Auditorium)

15h40 -16h00 Exhibition /Coffee Break

16h00 **End of MiNaPAD 2023 conference**