IMAPS Nordic 2008 Programme rev.8

Hotel Marienlyst
Helsingør - September 14 – 16

Sunday 14 September

14:00 – 18:00	Tutorial 1 **LTCC for Micro- and Millimetre-Wave Applications** Peter Uhlig, IMST, Germany	

16:00 – 19:00	**REGISTRATION**

19:30 – 21:30	**Cocktail Party for all**

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Monday 15 September

08:00 – 18:30	**REGISTRATION**	

09:00 – 09:45	**COFFEE**

09:45 – 12:00	**Opening Session MA-1**	Søren Nørlyng
10:00 - 10:30	**Keynote1: Erik V. Thomsen, MIC – Department of Micro and Nanotechnology, DTU, Denmark** Micro and nano engineering activities in Denmark	
10:30 - 11:00	**Keynote2: Andy Longford, PandA Europe, UK** Micro-Nano Systems: Future R&D and new challenges for Europe	
11:00 - 11:30	**Exhibitors' Presentations**, one single minute each	
11:30 – 12:15	**IMAPS-NORDIC ANNUAL MEETING**	
12:15 – 13:30	**LUNCH**	

MP-A1: 3D, SIP, TSV			MP-B1: Reliability	
TIME	CHAIR		TIME	CHAIR
13:30 – 13:55	**3D package technology integration** Ho-Ming Tong, ASE, Taiwan. (Invited speech)		13:30 – 13:55	**Electronics in high pressure application. A reliability study** Rolf Johannessen, F. Oldervoll, SINTEF, Norway
13:55 – 14:20	**High performance miniature 3D RF SiPs combining active silicon with a silicon-based Integrated Passive Device** Jean-Marc Yannou, Philippe Suchet, Stéphane Bellenger, NXP, France		13:55 – 14:20	**A novel test method to evaluate mechanical shock reliability** Jussi Hokka, T. T. Mattila, J. Li, and J. K. Kivilahti, Helsinki University of Technology, Finland
14:20 – 14:45	**TSV – a key technology for 3D system integration** Jürgen Wolf, FhG-IZM, Germany		14:20 – 14:45	**The reliability of solder interconnections under cyclic thermal and mechanical shock loading** Toni Mattila, H. Chen, J. K. Kivilahti, Helsinki University of Technology
14:45 – 15:10	**Implications of 3D IC implementation for system architecture** P. Laukkala, T. Hill, M. Tiilikainen, et al. Nokia, Finland		14:45 – 15:10	**Acceleration Factors for Lead Free Solder Materials** Olli Salmela, Nokia Siemens Networks, Finland
15:10 – 15:35	**Market and technology trends for 3D ICs** Jean-Christophe Eloy, Jérôme Baron, Eric Mounier, Yole Devéloppement, France			
15:10/ 15:35 – 16:10	**COFFEE & TIME FOR EXHIBITION**			

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MP-A2: Flip chip & Bumping		MP-B2: MEMS, sensors & sensor packaging	
TIME	CHAIR	TIME	CHAIR
16:10 – 16:35	**An overview of flip chip joining technologies and related materials** Søren Nørlyng, MICRONSULT, Denmark	16:10 – 16:35	**Packaged multi sensor system for fisheries research: new test methods of package** Karen Birkelund, Anders Hyldgård, Erik V. Thomsen, MIC, DTU Nanotech, Denmark
16:35 – 17:00	**Low temperature Au-Au flip chip interconnections** Barbara Pahl, M. Zwanzig*, S. Fiedler*, C. Kallmayer*, M. Töpper*, R. Schmidt*, R. Aschenbrenner*, H. Reichl, Technical University of Berlin, Research Center of Microperipheric Technologies, *Fraunhofer Institute for Reliability and Microintegration, Germany	16:35 – 17:00	**The theory of electrostatic forces in a thin electret (MEMS) speaker** Eino Jakku*, Taisto Tinttunen** and Terho Kutilainen***, *Perlos Corporation, **AWR-APLAC Corporation, *** Selmic Oy, Finland
17:00 – 17:25	**New flip chip technologies** Reinhard Windemuth, Panasonic, Germany	17:00 – 17:25	**Water penetration study for a wireless 3D electronic patch** Jakob Janting, DELTA Danish Electronics, Light & Acoustics, Denmark
17:25 – 17:50	**Lead-free WLCSP solder bumps on ENIG & ENEP(G) UBM – a comparison of intermetallic properties using high speed pull test** Thomas Oppert, T. Teutsch, E. Zakel, Pac Tech, Germany	17:25 – 17:50	**MEMS sensor packaging** Per-Erik Fägerman, Mandalon Technologies, Sweden
19:30 –	**BANQUET DINNER**		

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Tuesday 16 September

TA-A1: Ceramics technologies		TA-B1: Design & Simulation	
TIME	CHAIR	TIME	CHAIR
08:30 – 08:55	**PZT thick film for integrated and miniaturised devices on silicon, LTCC and other substrates** Rasmus Lou-Møller[1], Tomasz Zawada[1], Erling Ringgaard[2] Karsten Hansen[2], [1]Denmark InSensor A/S, [2]Ferroperm Piezoceramics A/S, Denmark	08:30 – 08:55	**An experimental investigation of diffusion within electroplated lead-free solder alloy stacks combining elements such as Sn, Cu, Au and/or Zn onto a Ni UBM** René Bergmann[1)2)], Io Mizushima[3)], P. T. Tang[3)] & H. Nørgaard Hansen[1)], [1)]Department of Mechanical Engineering, Technical University of Denmark; [2)]Pulse MEMS Division, [3)]IPU – Manufacturing, Denmark
08:55 – 09:20	**Integration technologies for sensors using LTCC** Franz Bechtold, VIA electronic, Germany	08:55 – 09:20	**Study on Cu/Sn SLID Interconnects for RF Applications** Deokki Min, Kaiying Wang, Nils Hoivik and Ulrik Hanke, , Vestfold University College, Norway
09:20 – 09:45	**A 20 GHz Fractional-N Synthesizer Module for Satellite Operation** Peter Uhlig, R.Follmann, O. Kersten, T. Kohl, R. Kulke, G. Möllenbeck IMST, Germany	09:20 – 09:45	**Reliability evaluation for solder joints in embedded electronic packages conside-ring the effect of adhesion of the interfaces** Hiroki Miyauchi[1], Qiang Yu[1], Tadahiro Shibutani[1], Klas Andersson[2], Kari Ojala[2], Harri Lasarov[2], [1]Yokohama National University, Japan, [2]Nokia, Finland
09:45 – 10:45	**COFFEE & TIME FOR EXHIBITION**		

TA-A2: Ceramics technologies & HB LED		TA-B2: Materials	
TIME	CHAIR	TIME	CHAIR
10:45 – 11:10	**Technology and design of precise embedded capacitors in LTCC** Jens Müller, R. Perrone, TU Ilmenau, Germany	10:45 – 11:10	**A novel curative designed for wafer applied coatings** David Zoba[1], Paul Hough[2], [1]Lord Corporation, USA, [2]Lord Corporation, Germany
11:10 – 11:35	**Thick film pastes for the manufacture of low cost, insulated aluminium substrates suitable for use as integrated heat sinks for high intensity LEDs** Michel Bilinski, E. Eisermann, K. Jones-Williams, W. Smetana*, M. Unger*, and J. Whitmarsh, ESL, UK, *TU Wien	11:10 – 11:35	**Development of metal coated polymer particles with extremely narrow size distribution** H. Kristiansen[1], K. Redford[1], Z. Zhang[2], D. Whalley[1, 3], 1: Conpart AS, Norway, 2: NTNU, Norway, 3: Loughborough University, UK
11:35 – 12:00	**Novel HB-LED Silicone-Phosphors Dispensing for Small Packaging Geometries** Horatio Quinones, Asymtek, USA	11:35 – 12:00	**Uniformity Requirements for Electroplated Cu-Sn Interconnects Used in Heterogeneous 3-D MEMS/ASIC Stacks** H. Liu, E. M. Husa, Z. Ramic, A. Munding, K. Aasmundtveit and N. Hoivik, Vestfold University College, Norway

12:00 – 13:00	**LUNCH**

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TP-A1: Packaging & Interconnection technologies		**TP-B1: Applications & Manufacturing**	
TIME	CHAIR	TIME	CHAIR
13:00 – 13:25	**Methods for assembly of standard electronic components without solder** Joseph Fjelstad, Verdant Electronics, USA	13:00 – 13:25	**Thick film modules mounted on flexible printed circuits** Markus Detert, Lars Rebenklau, Thomas Zerna, Klaus-Jürgen Wolter, Dresden University of Technology, Germany
13:25 – 13:50	**Development of a novel solder interconnection technique by using the self-assembly phenomenon of solder particles herded by microbubbles** Takashi Kitae, Susumu Sawada, Seiji Karashima, Seiichi Nakatani, Tatsuo Ogawa, Matsushita Electric Industrial, Japan	13:25 – 13:50	**Adhesion of flexible printed circuit substrate to overmoulded polymer and characterization of overmolded electronic components** M. Koponen[1], T. Alajoki[2], T. Kosonen[3], J. Petäjä[2], M. Heikkinen[2], T. Vuorinen[1] and J.-T. Mäkinen[2], [1]VTT Tampere, [2]VTT Oulu, [3]VTT Espoo, Finland
13:50 – 14:15	**Advanced packaging requirements** Voya Markovich, H. Lin, M. Rowlands, EI (Endicott Interconnect Technologies), USA	13:50 – 14:15	**Plasma technology for flip chip and thinner packaging** Reinhard Windemuth, Panasonic, Germany
14:15 - 14: 40	**Chip/Antenna interconnections for contact-less smart card applications** Jaakko Lenkkeri, Tuomo Jaakola and Markku Lahti, VTT, Oulu, Mark Allen, VTT Espoo, Toni Kaskiala, Gemalto, Finland	14:15 - 14: 40	**X-ray nanoCT: Visualisation of internal 3D structures with submicrometer resolution** André Egbert, Phoenix|x-ray Systems Services, Germany
14:15 – 14:50/ 15:15	**COFFEE & TIME FOR EXHIBITION**		
TP-A2: Embedding & flex based technologies		**TP-B2: Harsh environment & Thermal management**	
TIME	CHAIR	TIME	CHAIR
		14:50 - 15:15	**High reliability gold stud bumping for harsh environments** Hoang-Vu Nguyen, Rolf Johannessen*, Nils Hoivik and Knut Aasmundtveit, Vestfold University College, *SINTEF Information and Communication Technology, Norway
15:15 - 15:40	**Functionality and reliability testing of bendable Ultrathin Chip Packages (UTCP's)** W. Christiaens[1], T. Torfs[2], W. Huwel[3], J. Vanfleteren[1], [1]IMEC/CMST, Gent, Belgium, [2]IMEC, Leuven, Belgium, [3]ACB, Dendermonde, Belgium	15:15 - 15:40	**Novel filler packing for improved thermal interface materials** Sara N. Paisner[1], Paul Hough[2], [1]Lord Corporation, USA, [2]Lord Corporation, Germany
15:40 – 16:05	**Hearing aid demonstrators based on cavity PCB and folded thin-flex** Anders E. Petersen, Ras K. Vestergaard, Oticon, Denmark	15:40 – 16:05	**Die crack prevention in discrete devices with dice soldered onto copper leadframe** Roelf A J Groenhuis, Sven Walczyk, NXP, The Netherlands
16:05 – 16:10	**CLOSING – and seeing you in Tønsberg, Norway, September 13-15, 2009**		