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9:45-11:00 Wednesday, April 15

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TA1: Technology Challenges for "Killer Devices" in the IoT World-1

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10:25-12:30 Thursday, April 16

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TC1: Printed Electronics-1

10:25-12:30 Thursday, April 16

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TE2: Interconnection-2

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TE3: Interconnection-3

16:25-18:30 Thursday, April 16

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FB4-4	Modeling of Positional Plasma Characteristics by Inserting Body Tube of Optical Emission Spectroscopy for Plasma Assisted Atomic Layer Deposition System	In Joong Kim, Yong Hyeon Shin, Ilgu Yun, Yonsei University / Korea	**638**

FC1: Optoelectronics-1

9:30-10:45 Friday, April 17

FC1-1	The Study of Thermal Cycling Performance of Enacpasulant Material in SMD LEDs Application	Chih-Hao Lin, Kai-Chi Chen, Shu-Chen Huang, Hsun-Tien Li, Industrial Technology Research Institute / Taiwan	**642**
FC1-2	Higher Polarization Crosstalk of 38.5 dB and Low PDL with Silane Modified Highly Moisture Resistant Adhesives in Assembling Optical Devices	Seiko Mitachi[1], Hirokazu Kageyama[2], Kazushi Kimura[2], Ryo Nagase[3], [1]Tokyo University of Technology, [2]The Yokohama Rubber, [3]Chiba Institute of Technology / Japan	
FC1-3	Reflection Optical Notch Filtering Behavior of Cavity- Resonator-Integrated Guided- Mode Resonance Mirror	Masahiro Nakata[1], Tomohiro Kondo[1], Kenji Kintaka[2], Junichi Inoue[1], Shogo Ura[1], [1]Kyoto Institute of Technology, [2]National Institute of Advanced Industrial Science and Technology / Japan	**652**

FC2: Optoelectronics-2

11:00-12:15 Friday, April 17

FC2-1	Small-footprint 128-Gb/s DP-QPSK Silicon Optical Modulator in Ceramic-based Metal Package with Low Optical Coupling Loss	Hiroki Ishihara[1], Yasuhiro Mashiko[1], Kazuhiro Goi[1], Kensuke Ogawa[1], Tsung-Yang Liow[2], Xiaoguaog Tu[2], Guo-Qiang Lo[2], Dim-Lee Kwong[2], [1]Fujikura / Japan, [2]A*STAR / Singapore	**656**
FC2-2	Opto-Electronic Hybrid Integrated Chip Packaging Technology for Silicon Photonic Platform Using Gold-Stud Bump Bonding	Mistuo Usui, Kotaro Takeda, Hirooki Hirata, Hiroshi Fukuda, Tai Tsuchizawa, Hidetaka Nishi, Rai Kou, Tatsuro Hiraki, Kentaro Honda, Masashi Nogawa, Koji Yamada, Tsuyoshi Yamamoto, NTT / Japan	**660**
FC2-3	Influence of Atmospheric- Pressure Plasma Treatment on Surface and Electrical Properties of Photodiode Chips	So Ikeda, Eiji Higurashi, Tadatomo Suga, The University of Tokyo / Japan	**666**

FC3: Optoelectronics-3

13:25-15:05 Friday, April 17

FC3-1 **<Session Invited>**	Flip Chip, CSP or WL-PKG, the Near Future of LED Device	Tetsuya Onishi, Grand Joint Technology / Hong Kong	
FC3-2	A Measure Against the Latest Problem of LED Package	Hirofumi Torigoe, Yoshiteru Miyawaki, SANYU REC / Japan	**678**
FC3-3 **<Session Invited>**	Flip Chip LED COB Bonding Process with Low-Temperature-Curable Conductive Paste	H. Kashitani, A.Uchida, Ohashi Engineering / Japan	
FC3-4	Determination of the Junction Temperature of Gallium Nitride (GaN)-based High Power LED under Thermal with Current Loading Condition	Feng-Mao Hsu, Yen-Fu Su, Kuo-Ning Chiang, National Tsing Hua University / Taiwan	**691**

FC4: RF

15:20-17:00 Friday, April 17

FC4-1	Impedance Balance Control for Reduction of Common Mode Noise in Full Bridge Converter	Masaaki Maeda, Tohlu Matsushima, Takashi Hisakado, Osami Wada, Kyoto University / Japan	**695**
FC4-2	Suppression of Mode-Conversion by DNG Material Placed on Differential-Paired Lines with Bend Discontinuities	Yoshiki Kayano[1], Hiroshi Inoue[2], [1]Akita University, [2]The Open University of Japan / Japan	**700**
FC4-3	Development of Less than 100μm Thick Sheet for Noise Attenuation by Electromagnetic Induction	Kishio Hidaka[1], Toru Nihei[2], Noriji Tashiro[2], Atsushi Hujita[2], [1]Yamagata University, [2]Hitachi Chemical / Japan	**704**
FC4-4 **<Session Invited>**	Development of Battery-less Integral Type Wireless Current Sensor Node	Hironao Okada, Toshihiro Itoh, National Institute of Advanced Industrial Science and Technology / Japan	

FD1: DMR*-Electrical-1

9:30-10:45 Friday, April 17

FD1-1	Improved Delay-Matching Bus Routing by using Multi-layers	Yang Tian, Takahiro Watanabe, Waseda University / Japan	**708**
FD1-2	Method for Automatic Compensation of the Loading Effect for High-Precision Buffer Amplifiers	Seitaro Kon, Tatsuji Yamada, National Institute of Advanced Industrial Science and Technology / Japan	**714**
FD1-3	A Testable Design for Electrical Interconnect Tests of 3D ICs	Akihiro Odoriba[1], Shoichi Umezu[1], Masaki Hashizume[1], Hiroyuki Yotsuyanagi[1], Fara Ashikin Binti Ali[2], Shyue-Kung Lu[3], [1]Tokushima University / Japan, [2]Universiti Teknikal Malaysia Melaka / Malaysia, [3]National Taiwan University of Science and Technology / Taiwan	**718**

FD2: DMR*-Electrical-2

11:00-12:15 Friday, April 17

FD2-1	Optimum Characteristic and Structural Design of PWB Radiation Detector Considering Gas Amplification Reaction	Kohei Ota, Motonori Oono, Tomohisa Motomura, Dai Nippon Printing / Japan	**723**
FD2-2	Practical Optimization Flow using a New System Design Methodology	Ken Kawamura[1], Hidenori Murata[1], Yoshiharu Iwata[1], Ryohei Satoh[1], Takeshi Sakamoto[2], Kazuya Okamoto[1], [1]Osaka University, [2]GLOBALASSIST / Japan	**728**

* DMR: Design Modeling and Reliability

FD3: DMR*-Electrical-3

13:25-15:05 Friday, April 17

FD4: DMR*-Electrical-4

15:20-17:00 Friday, April 17

FE1: DMR*-Mechanical-1

9:30-10:45 Friday, April 17

* DMR: Design Modeling and Reliability

FE2: DMR*-Mechanical-2

11:00-12:15 Friday, April 17

FE3: Interconnection-5

13:25-15:05 Friday, April 17

* DMR: Design Modeling and Reliability

Poster Session

P01	Embedded Planar Power Inductor Technology for Package-level DC Power Grid	Yuta Kondo[1], Yuichiro Yazaki[1], Makoto Sonehara[1], Toshiro Sato[1], Tetsuro Watanabe[2], Yuto Seino[2], Nobuhiro Matsushita[2], Tomoharu Fujii[3], Kazutaka Kobayashi[3], Hiroshi Shimizu[3], Yuki Yanagisawa[4], Teruki Someya[4], Hiroshi Fuketa[4], Makoto Takamiya[4], Takayasu Sakurai[4], [1]Shinshu University, [2]Tokyo Institute of Technology, [3]SHINKO Electric Industries, [4]The University of Tokyo / Japan	**814**
P02	Stress and Strain Analysis using Multi-Physics Solver for Power Device Heat Dissipation Structures under Thermal Cycling Test	Takahiro Asai[1], Masaaki Aoki[1], Akihiro Mochizuki[2], Takamitsu Honjo[2], Hitoshi Kida[2], Goro Yoshinari[2], Nobuhiko Nakano[1], [1]Keio University, [2]Alent Japan / Japan	**818**
P03	Heat Dissipation Characterization and Application of SiC Power Devices by Transient Thermal Measurement	Ryo Endoh, Junichi Watanabe, Ryuichi Sugie, Takashi Yamamoto, Toray Research Center / Japan	**822**
P04	Synthesis and Characterization of Polydopamine Modified Carbon Nanotube (CNT)/ Polydimethylsiloxane (PDMS) Composites	Chih-Feng Wang[1], Pei-Kang Huang[1], Pei-Rung Hung[1], Chan-Chih Hsu[1], Sheng-Rui Jian[1], Ping-Feng Yang[2], Min-Hua Chung[2], [1]I-Shou University, [2]Advanced Semiconductor Engineering / Taiwan	**826**
P05	Effect of Au Nanoporous Structure on Bonding Strength	Kaori Matsunaga[1], Min-Su Kim[1], Hiroshi Nishikawa[1], Mikiko Saito[2], Jun Mizuno[2], [1]Osaka University, [2]Waseda University / Japan	**830**
P06	Cu/BCB Hybrid Bonding with TSV for 3D Integration by using Fly Cutting Technology	Zhi-Cheng Hsiao, Cheng-Ta Ko, Hsiang-Hung Chang, Huan-Chun Fu, Chia-Wei Chiang, Chao-Kai Hsu, Wen-Wei Shen, Wei-Chung Lo, Industrial Technology Research Institute / Taiwan	**834**
P07	In Situ Observations of Micromechanical Behaviours of Intermetallic Compounds for Structural Applications in 3D IC Micro Joints	Jen-Jui Yu, Jui-Yang Wu, Li-Jen Yu, C. Robert Kao, National Taiwan University / Taiwan	**838**
P08	Effect of Ag Concentration on Ni/ Sn-xAg/Ni Micro Joints under Space Confinement	Jen-Jui Yu, Jui-Yang Wu, Sean Yang, C. Robert Kao, National Taiwan University / Taiwan	**842**
P09	Effect of Adherend Surface Morphology on Adhesive Strength	Yoshio Oozeki, Hiroaki Furuichi, Rika Nomura, Satoshi Arai, Hitachi / Japan	**846**
P10	Low Temperature Au-Au Surface-Activated Bonding Using Nitrogen Atmospheric-Pressure Plasma Treatment for Optical Microsystems	Seiya Matsuoka[1], Michitaka Yamamoto[1], Eiji Higurashi[1], Tadatomo Suga[1], Renshi Sawada[2], [1]The University of Tokyo, [2]Kyusyu University / Japan	**850**