7th IEEE Electron Devices Technology and Manufacturing (EDTM) Conference 2023

March 7 – 10, 2023 / COEX Seoul, Korea

55B. System Reliability

Session Date:	March 10(Fri.), 2023
Session Time:	13:15-14:40
Session Room:	Room B (#307 bc)
Session Chair:	Dr. Alexander Grill (imec)
	Prof. Sangwan Kim (Sogang University)

[55B-1] [Invited] 13:15-13:40

Enhanced Thermo-Mechanical Reliability of High Bandwidth Memory through Mass Reflow Bonding and Molded Underfill

Sangyong Lee, Jong-Kyu Moon, Taehee Kim, Kyungbeom Seo, Minsuk Kim and Gyujei Lee

SK hynix Inc.

[55B-2] 13:40-13:55

Prediction of Crack Type and Life of Printed Circuit Board under Thermal Cycling with Respect to Solder Composition

Heon-Su Kim[1], You-Gwon Kim[1], Do-Hyung Kim[2], Dong-Min Jang[2], Jin-Woo Jang[2], Seung-Yeong Lee[2] and Hak-Sung Kim[1]

[1]Hanyang University, [2]Samsung Electronics Co., Ltd.

[55B-3] 13:55-14:10

Impact of RF Frequency Bands on the DC and Large Signal Reliability of a 45nm RFSOI NFET Based Power Amplifier Cell

Aarti Rathi[1], P. Srinivasan[2] and Abhisek Dixit[1]

[1]Indian Institute of Technology Delhi, [2]GlobalFoundries

[55B-4] 14:10-14:25

Reliability Prediction for Automotive 5nm and 7nm Technology Node by Using Machine Learning Based Solution

Hyung Joo Lee[1], Dongin Kim[2], Sanghyun Choi[1], Seungpyo Hong[1], Doohwan Kwak[1], Srividya Jayaram[1], Seungwon Paek[2], Minho Kwon[2], Yeongdo Kim[2], Hyobe Jung[2], Ivan Kissiov[1], Melody Tao[1], Andres Torres[1], Nathan Greeneltch[1] and Ho Lee[2]

[1]Siemens EDA, [2]Samsung Electronics Co., Ltd.

[55B-5] 14:25-14:40

Predictable ESD Criteria with Proposed Comparison Diagram between TLP and HBM ESD for Various Device Technologies and Different Substrates

Hyeokjae Lee[1], Dong-Sung Kim[1], Jae-Young Noh[1], Youngboo Kim[1], Jisun Park[2] and Hyungsoon Shin[2]

[1]QRT Inc., [2]Ewha Womans University