

Session Title: [WB1] [SS] Innovative Front-End Components in mmWave IC

Design

Session Date: December 3 (Wed.), 2025

Session Time: 13:20-15:00

Session Room: Room B (Halla B)

Session Chair(s): Philipp Neininger (Fraunhofer IAF, Germany)

Hyunchul Ku (Konkuk University, Korea)

[WB1-1] 13:20-13:40

A D-Band CMOS Low-Noise Amplifier Using Complementary Feedback Techniques

Ha-Neul Lee and Jong-Ryul Yang (Konkuk University, Korea (South))

[WB1-2] 13:40-14:00

A Portable K-Band 4-D MIMO FMCW Radar System with Sparse Array for Short-Range Dual-Hand Gesture Sensing

Jiayu Zhang, Yuchen Li, Zhiwei Zhang, Yiyan Cao, Changzhan Gu and Junfa Mao (Shanghai Jiao Tong University, China)

[WB1-3] 14:00-14:20

A 127-GHz High-Efficiency Push-Push Oscillator Using Decoupled Harmonic Bypass Stub in 100-nm InP HEMT Technology

Seungwoo Shim, Hyunjoon Kim and Sanggeun Jeon (Korea University, Korea (South))

[WB1-4] 14:20-14:40

A Ku-Band CMOS Variable Gain Phase Shifter for Upper Mid-Band 6G Communication

Eunchae Jo, Mingyu Lee, Haram Park, Hyeonwon Song and Eunsu Mo (Chonnam National University, Korea (South)); Seunghun Wang (Electronics and Telecommunications Research Institute, Korea (South)); Seungchan Lee (Chonnam National University, Korea (South)); Bonghyuk Park (ETRI, Korea (South)); Hui Dong Lee (Electronics and Telecommunications Research Institute, Korea (South)); Jinseok Park (Chonnam National University, Korea (South))

[WB1-5] 14:40-15:00

A Ka-Band Three-Way Doherty Power Amplifier in 150-nm GaN Technology

Moise Safari Mugisho, Christian Friesicke, Friedbert van Raay, Dirk Schwantuschke and Rüdiger Quay (Fraunhofer IAF, Germany)