

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)

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

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

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

Moise Safari Mugisho and Christian Friesicke (Fraunhofer IAF, Germany); Friedbert van Raay (IAF, Germany); Dirk Schwantuschke (Fraunhofer Institute for Applied Solid State Physics, Germany); Rüdiger Quay (Fraunhofer IAF, Germany)