

Session Title: [TE4] Design and Characterization of RF Systems and

Components

Session Date: December 4 (Thu.), 2025

Session Time: 15:40-17:20
Session Room: Room E (301)

Sang-Seok Lee (Tottori University, Japan)

Session Chair(s): Fauziahanim Che Seman (Tun Hussein Onn University of Malaysia,

Malaysia)

[TE4-1] [Invited] 15:40-16:00

Recent Developments in Millimeter-Wave Receiver Technology for Radio Astronomy in South Korea

Jung-Won Lee (Korea Astronomy and Space Science Institute & University of Science & Technology, Korea (South)); Do-Heung Je, Jihoon Choi and Bangwon Lee (Korea Astronomy and Space Science Institute, Korea (South)); Junhan Kim (Korea Advanced Institute of Science and Technology, Korea (South)); Seungrae Kim (Korea Astronomy and Space Science Institute, Korea (South)); Jiman Kang (Korea Astronomy and Space Science Institute & University of Science & Technology, Korea (South)); Minsu Ko and Wooseok Kang (Korea Advanced Institute of Science and Technology, Korea (South))

[TE4-2] 16:00-16:20

Sparse Antenna Impedance Reconstruction for Blind Frequency Impedance Matching in Mobile Devices

Min-Gi Kim, Hyungcheol Kim, Sangmi Noh and Dooseok Choi (Samsung Electronics, Korea (South))

[TE4-3] 16:20-16:40

Analysis of Probe Coupling for Channel Property Optimization in an HVAC Duct

Dong-Min Seo, Ji-Hoon Lee, Hyo-Won Lee, Ji-Young Kim and Jong-Won Yu (Korea Advanced Institute of Science and Technology (KAIST), Korea (South))

[TE4-4] 16:40-17:00

Design of a Wideband SIW Bandpass Filter Using Resonator Spacing for Improved Coupling

Geun-Young Bae (Korea Electronics Technology Institute, Korea (South)); Kwang-Sik Park (Thislink, Korea (South)); Jong-Gwan Yook (Yonsei University, Korea (South)); Chan-Sei Yoo (Korea Electronics Technology Institute, Korea (South))

[TE4-5] 17:00-17:20

AI-Assisted EM Simulator for the Randomized Pixelated RF Components

Jungmin Lee (Virginia Polytechnic Institute and State University, USA); Woojun Lee (Virginia Tech, USA); Ji Wu Hong (Virginia Polytechnic Institute and State University, USA); Jeffrey Walling (University of Utah, USA)