GigaHertz Centre Disclosure List 2017-2021 2021-03-15

Manuscript Disclosures

2017

[D1] Lower Bound for the Normalized Mean Square Error in Power Amplifier linearization (ELEMENT)

[D2] Two-Finger InP HEMT Design for Stable Cryogenic Operation of Ultra-Low-Noise Ka- and Q-Band LNAs, (ITHZS)

[D3] Analyzing The Back-Gating Effect in GaN HEMTs with Field-Plates Using an Empirical Trap Model, (THERMAL)

[D4] Designing and characterizing MATE, the Chalmers mm-wave MIMO testbed. (SURF)

[D5] Low Noise 874 GHz Receivers for ISMAR (ITHZS)

[D6] 0.3–14- and 16–28-GHz Wide-Bandwidth Cryogenic MMIC Low-Noise Amplifiers (ITHZS)

[D7] IVD1, see below

[D8] Compensation of Performance Degradation due to Thermal Effects in GaN LNA using Dynamic Bias. (THERMAL)

[D9] Optimizing the Signal-to-Noise and Distortion Ratio of a GaN LNA using Dynamic Bias. (THERMAL)

[D10] Generalized Combiner Synthesis Technique for Doherty and Outphasing PAs, (ELEMENT)

[D11] IVD2, see below

[D12] Over-the-Air-Linearization of Multi-Antenna Transmitters Affected by Antenna Crosstalk (ELEMENT)

[D13] Analysis of Lateral Thermal Coupling for GaN MMIC Technologies (THERMAL)

[D14] Magnetic Influence on Cryogenic InP HEMT DC Characteristics (ITHZS)

2018

[D15] A Generalized 3-dB Wilkinson Power Combiner/Divider with Complex Terminations (ELEMENT)

[D16] Magnetic Influence on Cryogenic InP HEMT LNAs (ITHZS)

[D17] InP HEMT Design for Cryogenic Low Noise Amplifiers (ITHZS)

[D18] MATE, Chalmers ‘millimeter-wave MIMO testbed towards 100 Gbit/s (SURF)

[D19] Compensation of Hardware Impairments in MATE, the Chalmers mmWave MIMO Testbed (SURF)

[D20] On the Impact of Colored Transmitter Noise on Millimeter Wave MIMO Systems (ELEMENT)

[D21] Nonlinear Characterization of Wideband Microwave Devices and Dispersive Effects in GaN HEMTs (THERMAL)

[D22] Methods for Electrothermal Characterization of GaN HEMT Structures (THERMAL)

[D23] A Novel Test Structure for Electrothermal Assessment of GaN Technologies (THERMAL)

[D24] Impact of Spatial Filtering on Distortion from Low-Noise Amplifiers in Massive MIMO Base Stations (SURF)

[D25] Design Considerations and Evaluation of a High-Speed SAR ADC (ELEMENT)

[D26] Linearity and efficiency in 5G transmitters-What's the problem? (ELEMENT)

[D27] Intra-Array Coupling Estimation for MIMO Transceivers Utilizing Blind Over-The-Air Measurements (ELEMENT)

[D28] A 183-GHz Schottky Diode Receiver with 4 dB Noise Figure (ITHZS)

[D29] 4.7 THz GaAs Schottky Diode Receiver Components (ITHZS)

2019

[D30] IVD3, see below

[D31] Angular Dependence of InP High Electron Mobility Transistors for Cryogenic Low Noise Amplifiers under a magnetic field (ITHZS)

[D32] On the Angular Dependence of Cryogenic InP HEMTs in a Magnetic Field (ITHZS)

[D33] IVD4, see below

[D34] On the Angular Dependence of InP High Electron Mobility Transistors for Cryogenic Low Noise Amplifiers in a Magnetic Field (ITHZS)

[D35] Emulation of Doherty Amplifiers Using Single Amplifier Load-Pull Measurements (ELEMENT)

[D36] Over-the-air investigation of transmitter and receiver nonlinear distortion using a mm-wave MIMO testbed (SURF)

[D37] Spiral Constellations for Phase Noise Channels (SURF)

[D38] Nonlinear Effects in Wireless Transceivers (SURF and ELEMENT).

[D39] Reconstruction of Clipped Signals in Quantized, Uplink Massive MIMO Systems (SURF)

[D40] Quantized Uplink Massive MIMO Systems With Linear Receiver (SURF)

2020

[D41] IVD5, see below

[D43] On the Impact of Crest Factor Reduction (ELEMENT)

[D43] Emulation of Load Modulated Amplifiers Using Tabulated Load-Pull Data From a Single Amplifier (ELEMENT)

[D44] Impact of Channel Indium Content on InP HEMTs for Cryogenic C-Band Low Noise Amplifiers (ITHZS)

[D45] Nonlinear Distortion Investigation Using mm-Wave Over-the-Air SISO and MISO Measurements (SURF)

[D46] Amplitude Varying Phased Array Linearization (ELEMENT)

[D47] Design and development of 3.5 THz Schottky-based fundamental mixer (ITHZS)

[D48] Reliability study of THz Schottky mixers and HBV frequency multipliers for space applications (ITHZS)

[D49] A 300-μW Cryogenic HEMT LNA for Quantum Computing (ITHZS)

[D50] An Extended Kalman Filter Framework for Joint Phase Noise, CFO and Sampling Time Error Estimation (SURF)

[D51] InP HEMTs for sub-mW cryogenic low-noise amplifiers (ITHZS)

[D52] Schottky diode receiver front-ends at 600 GHz and 1200 GHz for the sub-millimeter wave instrument on JUICE (ITHZS)

[D53] A 3.5 THz Schottky-diode x6 harmonic mixer for QCL frequency stabilization (ITHZS)

[D54] InP HEMT Channel Design for Sub-mW Cryogenic Low-Noise Amplifiers (ITHZS)

[D55] III-V HEMTs for Cryogenic Low Noise Amplifiers (ITHZS)

[D56] Millimeter-Wave Power Amplifier Integrated Circuits for High Dynamic Range Signals (ELEMENT)

[D57] IVD6, see below

[D58] Blind RX Distortion Compensation (SURF)

[D59] Circulator Load Modulated Amplifier: A Non-Reciprocal Wideband and Efficient PA Architecture (ELEMENT)

2021

[D60] Reduction of Noise Temperature in Cryogenic InP HEMT Low Noise Amplifiers with Increased Spacer Thickness in InAlAs-InGaAs-InP Heterostructures (ITHZS)

Invention Disclosures

2017

[IVD1] The use of complementary devices in feedback configuration for power amplifier linearization. (ELEMENT)

2018

[IVD2] Simplified Pre-Distortion for Antenna Arrays with Mutual Coupling. (ELEMENT)

2019

[IVD1] A new configuration for series resonant voltage-controlled oscillators (ELEMENT)

[IVD4] Clipping Restoration receiver for Massive MIMO (SURF).

2020

[IVD5] An RF-DAC unit cell for high data bandwidth (ELEMENT)

[IVD6] Circulator Based Load Modulation Amplifier (ELEMENT)