

# GigaHertz Centre

## Disclosure list - Stage 4

No	Project	Title
#1	SITRA	Flexible and Efficient Multi-Antenna Transmitter Architecture Using Digital High-Speed Optical Interconnect Technology- Innovation disclosure
#2	TOPGaN	Symmetry based Nonlinear Model for GaN HEMTs
#3	TOPGaN	Characterization of memory effects and RF performance of AlGaIn/GaN HEMTs with Fe doped buffer
#4	TOPGaN	Dispersive Effects in AlGaIn/AlN/GaN HEMTs with Carbon-doped Buffer
#5	GANOSC+	Optimum GaN HEMT Oscillator Design Targeting Low Phase Noise- Lic Theses
#6	INTHEL	Cryogenic Low Noise Amplifiers in an InP HEMT MMIC Process
#7	GANOSC+	A MMIC GaN HEMT Voltage-Controlled-Oscillator with high linearity and low phase noise
#8	SITRA	Symmetrical Doherty Power Amplifier with Extended Efficiency Range
#9	SITRA	Digital Predistortion for the Linearization of Power Amplifiers
#10	SITRA	Identification and Compensation of Distortion in Multi-Antenna Transmitters- Innovation Disclosure
#11	INTHEL	SWI 1200/600 GHZ HIGHLY INTEGRATED RECEIVER FRONT-ENDS
#12	GANOSC+	Analysis and improvement of phase noise performance of a PLL-based RF synthesizer- Accurate modeling including voltage noise generated in the active loop filter- Diploma Work
#13	TOPGaN	Graphical User Interface (GUI) for control and calibration of a wideband, VNA-based two-port characterization setup
#14	GANOSC+	A Double-Tuned VCO with constant output power and small phase noise variation- Invention Disclosure
#15	GANOSC+	A GaN HEMT X-band Cavity Oscillator with Electronic Gain Control
#16	INTHEL	InP HEMT With Noise Temperature below 1 K
#17	INTHEL	Towards High Electron Mobility Transistors with Superconducting Gates
#18	SITRA	Design of a 30 GHz Doherty Power Amplifier Based on Combiner and Input Network Synthesis Techniques
#19	INTHEL	THz Smooth-Walled Spline Horn Antennas: Design, Manufacturing and Measurements
#20	SITRA	Digital Predistorter Model Derivation Using Iterative Learning Control
#21	TOPGaN	Wideband RF Characterization Setup with High Dynamic Range Low Frequency Measurement Capabilities
#22	INTHEL	10 K Room Temperature LNA for SKA Band 1
#23	INTHEL	Cryogenic low-noise InP HEMTs: A source-drain distance study
#24	INTHEL	Cryogenic InP HEMTs with Superconducting Gates
#25	INTHEL	Ultra Low Noise 600/1200 GHz and 874 GHz GaAs Schottky Receivers for SWI and ISMAR (only abstract)
#26	TOPGaN	Thermal waves for depth profiling of thermal properties in epitaxial AlGaIn/GaN on SiC
#27	SITRA	Digital pre-distortion parameter adaptation from scalar measurement data (Innovation disclosure)
#28	GANOSC	Analysis of a MEMS Tuned Cavity Oscillator on X-band

#29	SITRA	Design of linear and efficient power amplifiers by generalization of the Doherty theory (only abstract)
#30	TOPGaN	Nonlinear Multiple-input Multiple-output Characterization of IQ-mixers
#31	GANOSC+	An X-band varactor-tuned cavity oscillator
#32	SITRA	Digital predistortion parameter identification technique using real-valued measurement output data
#33	SITRA	30 GHz SiGe Doherty PA based on Combiner Synthesis Method
#34	GANOSC+	7-13 GHz MMIC GaN HEMT Voltage-Controlled-Oscillators (VCOs) for Satellite Applications
#35	INTHEL	Two-Finger InP HEMT Design for Stable Cryogenic Operation of Ultra-Low-Noise Ka-Band LNAs
#36	INTHEL	Cryogenic LNAs for SKA band 2 to 5
#37	INTHEL	Cryogenic W-band LNA for ALMA Band 2+3 with Average Noise Temperature of 24 K
#38	TOPGaN	Accurate Modeling of GaN HEMT RF Behavior Using an Effective Trapping Potential
#39	SITRA	Analysis of Nonlinear Distortion in Phased Array Transmitters