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MO1C: 5G Communication Technology

Chair: Monte Miller, NXP Semiconductors — Co-Chair: Nils Pohl, Ruhr-Universität Bochum

08:00–09:40, Monday 15 January 2018, Venue: Garden 2

Not Available MO1C-1	5G Infrastructure: The Next Wave for Silicon Technology? (Invited) (P. Magnee , D. Leenaerts)
PAGE 1 MO1C-2	< 0.8dB IL 46dBm OIP3 Ka Band SPDT for 5G Communication (Chaojiang Li , Berkutug Ustundag , Arvind Kumar , Myra Boenke , Umut Kodak , Gabriel M. Rebeiz)
PAGE 4 MO1C-3	Body Assist Switch Branch Design for Second Harmonic Reduction (Paul Hurwitz , Kurt Moen)
PAGE 8 MO1C-4	A Wideband I/Q RFDAC-Based Phase Modulator (Yiyu Shen , Michael Polushkin , Mohammadreza Mehrpoo , Mohsen Hashemi , Earl McCune , Morteza S. Alavi , Leo C.N. de Vreede)

MO2C: Circuits and Applications I

Chair: Vadim Issakov, Infineon Technologies — Co-Chair: Rahul Kodkani, Qualcomm

10:10–11:50, Monday 15 January 2018, Venue: Garden 2

Not Available MO2C-1	Cellular vs. mmWave — Race for 10Gb/s (Invited) (A. Tasic)
PAGE 12 MO2C-2	A Universal Monolithic E-Band Transceiver for Automotive Radar Applications and V2V Communication (Maciej Kucharski , Dietmar Kissinger , Herman Jalli Ng)
PAGE 15 MO2C-3	A Low Power CMOS Temperature Sensor Frontend for RFID Tags (Hengying Shan , John Peterson III , Ming-Shiuan Tsai , Yingheng Tang , Nathan J. Conrad , Saeed Mohammadi)
PAGE 19 MO2C-4	A 1.8-mW Low Power, PVT-Resilient, High Linearity, Modified Gilbert-Cell Down-Conversion Mixer in 28-nm CMOS (R. Ciocoveanu , Johannes Rimmelspacher , Robert Weigel , Amelie Hagelauer , Vadim Issakov)

MO3C: SiRF Amplifiers and Frequency Conversion

Chair: A. Cagri Ulusoy, Michigan State University — Co-Chair: Chiennan Kuo, National Chiao Tung University

13:30–15:10, Monday 15 January 2018, Venue: Garden 2

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PAGE 27 MO3C-2	A Low-Power Wideband D-Band LNA in a 130nm BiCMOS Technology for Imaging Applications (E. Aguilar , Amelie Hagelauer , Dietmar Kissinger , Robert Weigel)
PAGE 30 MO3C-3	30% Frequency-Tuning-Range 60GHz Push-Push VCO in 28nm Bulk CMOS Technology (Johannes Rimmelspacher , Robert Weigel , Amelie Hagelauer , Vadim Issakov)
PAGE 33 MO3C-4	A 120GHz Wideband Low-Power Down Converter for Wireless Chip-to-Chip Communication (Chae Jun Lee , Hee Sung Lee , Seung Hun Kim , Tae Hwan Jang , Dong Min Kang , H.S. Son , Chul Woo Byeon , Chul Soon Park)
PAGE 37 MO3C-5	A Low-Power K-Band Colpitts VCO with 30% Tuning Range in a 130nm SiGe BiCMOS Technology (Farabi Ibne Jamal , J. Wessel , Dietmar Kissinger)

MO4C: Circuits and Applications II

Chair: Paul Hurwitz, TowerJazz — Co-Chair: Maciej Kucharski, IHP

15:40–17:00, Monday 15 January 2018, Venue: Garden 2

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MO4C-1 **RF Silicon Photonics for Wideband, High Dynamic Range Microwave and Millimeter-Wave Signal Processing (Invited)**
([Navid Hosseinzadeh](#), [Aditya Jain](#), [Roger Helkey](#), [James F. Buckwalter](#))
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MO4C-2 **A Low-Power VCSEL Driver in a Complementary SiGe:C BiCMOS Technology**
([Minsu Ko](#), [Ahmet Cagri Ulusoy](#), [Dietmar Kissinger](#))
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MO4C-3 **High Voltage LDMOS Inverter for On-Chip RF-MEMS Actuation**
([C. Wipf](#), [R. Sorge](#), [A. Göritz](#), [S. Tolunay Wipf](#), [A. Scheit](#), [Dietmar Kissinger](#), [Mehmet Kaynak](#))
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MO4C-4 **A 65nm CMOS 6–18GHz Full 360° 6-Bit Phase Shifter**
([Jin-Tao Hu](#), [Wei Li](#), [Lai He](#), [Shi-sheng Liu](#), [Yuan-yuan Xu](#), [Jie Gong](#))
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TU1C: mm-Wave and Higher Frequency Applications

Chair: Hasan Sharifi, HRL — Co-Chair: Monte Miller, NXP Semiconductors

08:00–09:40, Tuesday 16 January 2018, Venue: Garden 4

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([Bo Yu](#), [Yu Ye](#), [Xuan Ding](#), [Christian Neher](#), [Xiaoguang Liu](#), [Zhiwei Xu](#), [Qun Jane Gu](#))
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TU1C-2 **SiGe BiCMOS Technology for mm-Wave Applications — an Overview (Invited)**
([K. Aufinger](#))
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TU1C-3 **A Differential Vertical Hybrid Coupler and Low Capacitance RF Pads for Millimeter-Wave Applications in 28nm CMOS FDSOI**
([Florian Voineau](#), [Baudouin Martineau](#), [Mathilde Sié](#), [Anthony Ghiotto](#), [Eric Kerhervé](#))
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TU4C: Technology, Devices & Modeling

Chair: Nils Pohl, Ruhr-University Bochum — Co-Chair: Klaus Aufinger, Infineon Technologies

15:10–16:50, Tuesday 16 January 2018, Venue: Garden 4

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([M. Schroter](#), [A. Pawlak](#))
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([Peng Cheng](#), [Hisashi Shichijo](#))
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([Falk Korndörfer](#), [Anton Datsuk](#), [Mehmet Kaynak](#))
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TU4C-4 **A Dual-Element VNA Electronic Calibration in CMOS**
([Jun-Chau Chien](#), [Amin Arbabian](#), [Ali M. Niknejad](#))
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WE3P: Joint RWW Interactive Poster Session

Chair: Jeremy Muldavin, MIT Lincoln Laboratory — Co-Chair: Robert Caverly, Villanova University

12:55–14:30, Wednesday 17 January 2018, Venue: Grand Ballroom A

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([Roee Ben Yishay](#), [Danny Elad](#))
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Available
WE3P-24 **High Power (>15 W) Fractional RF MEMS Switched Capacitors Using RF/DC Actuators**
([Hosein Zareie](#), [Gabriel M. Rebeiz](#))