

# Deukhyoun Heo

## List of Publications by Year in descending order

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97  
papers

1,726  
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361413

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330143

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97  
docs citations

97  
times ranked

1186  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wireless NoC as Interconnection Backbone for Multicore Chips: Promises and Challenges. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 228-239.	3.6	237
2	Design of an Energy-Efficient CMOS-Compatible NoC Architecture with Millimeter-Wave Wireless Interconnects. IEEE Transactions on Computers, 2013, 62, 2382-2396.	3.4	167
3	A 1.2-pJ/bit 16-Gb/s 60-GHz OOK Transmitter in 65-nm CMOS for Wireless Network-On-Chip. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2357-2369.	4.6	73
4	Architecture and Design of Multichannel Millimeter-Wave Wireless NoC. IEEE Design and Test, 2014, 31, 19-28.	1.2	73
5	A 0.6-V Low Power UWB CMOS LNA. IEEE Microwave and Wireless Components Letters, 2007, 17, 229-231.	3.2	61
6	CMOS Startup Charge Pump With Body Bias and Backward Control for Energy Harvesting & Step-Up Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 1618-1628.	5.4	57
7	A 40% PAE Frequency-Reconfigurable CMOS Power Amplifier With Tunable Gate Drain Neutralization for 28-GHz 5G Radios. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2231-2245.	4.6	55
8	A 28GHz 41%-PAE linear CMOS power amplifier using a transformer-based AM-PM distortion-correction technique for 5G phased arrays. , 2018, , .		54
9	Design and Analysis of a Wideband 15-35-GHz Quadrature Phase Shifter With Inductive Loading. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 3024-3033.	4.6	51
10	An 18.7-Gb/s 60-GHz OOK Demodulator in 65-nm CMOS for Wireless Network-on-Chip. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 799-806.	5.4	49
11	Switched Substrate-Shield-Based Low-Loss CMOS Inductors for Wide Tuning Range VCOs. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2964-2976.	4.6	45
12	An Integrated Discrete-Time Delay-Compensating Technique for Large-Array Beamformers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3296-3306.	5.4	44
13	CMOS Power Amplifier Integrated Circuit With Dual-Mode Supply Modulator for Mobile Terminals. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 157-167.	5.4	43
14	A 25-35 GHz Neutralized Continuous Class-F CMOS Power Amplifier for 5G Mobile Communications Achieving 26% Modulation PAE at 1.5 Gb/s and 46.4% Peak PAE. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 834-847.	5.4	40
15	A wideband body-enabled millimeter-wave transceiver for wireless Network-on-Chip. , 2011, , .		37
16	A Novel SiGe PIN Diode SPST Switch for Broadband T/R Module. IEEE Microwave and Wireless Components Letters, 2007, 17, 352-354.	3.2	33
17	A Ka-Band Dual-Band Digitally Controlled Oscillator With $\sim 195.1$ -dBc/Hz FoM <sub>T</sub> Based on a Compact High-Q Dual-Path Phase-Switched Inductor. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 2748-2758.	4.6	27
18	A Self-Sustainable Power Management System for Reliable Power Scaling Up of Sediment Microbial Fuel Cells. IEEE Transactions on Power Electronics, 2015, 30, 4626-4632.	7.9	26

#	ARTICLE	IF	CITATIONS
19	Fast Beam Training With True-Time-Delay Arrays in Wideband Millimeter-Wave Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 1727-1739.	5.4	26
20	Fully Integrated Buck Converter With Fourth-Order Low-Pass Filter. IEEE Transactions on Power Electronics, 2017, 32, 3700-3707.	7.9	24
21	Transformer-Based Predistortion Linearizer for High Linearity and High Modulation Efficiency in mm-Wave 5G CMOS Power Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3074-3087.	4.6	23
22	Fully Integrated Switched-Inductor-Capacitor Voltage Regulator With 0.82-A/mm <sup>2</sup> Peak Current Density and 78% Peak Power Efficiency. IEEE Journal of Solid-State Circuits, 2021, 56, 1805-1815.	5.4	21
23	Reconfigurable high efficiency power amplifier with tunable coupling coefficient based transformer for 5G applications. , 2017, , .		20
24	A 5.6-GHz CMOS doubly balanced sub-harmonic mixer for direct conversion -zero IF receiver. , 0, , .		19
25	Highly Linear $K_u$ -Band SiGe PIN Diode Phase Shifter in Standard SiGe BiCMOS Process. IEEE Microwave and Wireless Components Letters, 2010, 20, 37-39.	3.2	18
26	High-Efficiency Fully Integrated Switched-Capacitor Voltage Regulator for Battery-Connected Applications in Low-Breakdown Process Technologies. IEEE Transactions on Power Electronics, 2018, 33, 6858-6868.	7.9	16
27	DVFS Pruning for Wireless NoC Architectures. IEEE Design and Test, 2015, 32, 29-38.	1.2	15
28	A compact 5.6 GHz low noise amplifier with new on-chip gain controllable active balun. , 0, , .		14
29	25.3 GHz, 4.1 mW VCO with 34.8% tuning range using a switched substrate-shield inductor. , 2015, , .		13
30	DC Polarity Control in Radio Frequency Synchronous Rectifier Circuits. IEEE Microwave and Wireless Components Letters, 2017, 27, 1107-1109.	3.2	13
31	Design of Millimeter-Wave Single-Shot Beam Training for True-Time-Delay Array. , 2020, , .		12
32	A Sub-1-V Bulk-Driven Opamp With an Effective Transconductance-Stabilizing Technique. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 1018-1022.	3.0	11
33	Current reuse triple-band signal source for multi-band wireless network-on-chip. , 2017, , .		11
34	A Spatial Multi-Bit Sub-1-V Time-Domain Matrix Multiplier Interface for Approximate Computing in 65-nm CMOS. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 506-518.	3.6	11
35	Design Techniques for Load-Independent Direct Bulk-Coupled Low Power QVCO. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 3658-3665.	4.6	10
36	Energy and Area Efficient Near Field Inductive Coupling. , 2017, , .		10

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37	Four-Element Wide Modulated Bandwidth MIMO Receiver With $\geq 35$ -dB Interference Cancellation. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3930-3941.	4.6	10
38	A 1-V CMOS VCO For 60-GHz Applications. , 0, , .		9
39	Design space exploration for reliable mm-wave wireless NoC architectures. , 2013, , .		9
40	High-Performance and Small-Form Factor Near-Field Inductive Coupling for 3-D NoC. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2921-2934.	3.1	9
41	A 16-Gb/s Low-Power Inductorless Wideband Gain-Boosted Baseband Amplifier With Skewed Differential Topology for Wireless Network-on-Chip. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2406-2418.	3.1	9
42	A 4-Element 800MHz-BW 29mW True-Time-Delay Spatial Signal Processor Enabling Fast Beam-Training with Data Communications. , 2021, , .		9
43	A Wide Operation Range CMOS Frequency Divider for 60GHz Dual-Conversion Receiver. , 0, , .		8
44	Analog-Assisted Digital Capacitorless Low-Dropout Regulator Supporting Wide Load Range. IEEE Transactions on Industrial Electronics, 2019, 66, 1799-1808.	7.9	8
45	A Highly Efficient Dual-band Harmonic-tuned GaN RF Synchronous Rectifier with Integrated Coupler and Phase Shifter. , 2019, , .		8
46	Analysis of Systematic Losses in Hybrid Envelope Tracking Modulators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 1319-1330.	5.4	8
47	A high IIP2 doubly balanced sub-harmonic mixer in 0.25- $\mu$ m CMOS for 5-GHz ISM band direct conversion receiver. , 0, , .		7
48	A 5.3GHz low-phase-noise LC VCO with harmonic filtering resistor. , 0, , .		7
49	A low-voltage low-phase-noise bottom-series LC QVCO using capacitor tapping technique. , 2008, , .		7
50	Compact sub-1mW low phase noise CMOS LC-VCO based on power reduction technique. , 2011, , .		7
51	A Dual-Output Step-Down Switched-Capacitor Voltage Regulator With a Flying Capacitor Crossing Technique for Enhanced Power Efficiency. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 2861-2871.	3.1	7
52	A Hybrid 3D Interconnect With 2x Bandwidth Density Employing Orthogonal Simultaneous Bidirectional Signaling for 3D NoC. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 3919-3932.	5.4	7
53	Impact of Bias Schemes on Doherty Power Amplifiers. , 0, , .		6
54	A 2.4 GHz CMOS Doherty Power Amplifier. , 2006, , .		6

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55	Performance evaluation of wireless NoCs in presence of irregular network routing strategies. , 2014, , .		6
56	Octave Frequency Range Triple-band Low Phase Noise K/Ka-Band VCO with a New Dual-path Inductor. , 2020, , .		6
57	A New Boosted Active-Capacitor With Negative- $G_m$ for Wide Tuning Range VCOs. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 1080-1090.	5.4	6
58	Making a Case for Partially Connected 3D NoC. ACM Journal on Emerging Technologies in Computing Systems, 2020, 16, 1-17.	2.3	6
59	A 1.3V Low Phase Noise 2-GHz CMOS Quadrature LC VCO. , 2006, , .		5
60	A V-band wide locking range CMOS frequency divider. , 2008, , .		5
61	Compact low phase imbalance broadband attenuator based on SiGe PIN diode. , 2012, , .		5
62	Thermal hotspot reduction in mm-Wave wireless NoC architectures. , 2014, , .		5
63	Zero-Power Feed-Forward Spur Cancellation for Supply-Regulated CMOS Ring PLLs. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 653-662.	3.1	5
64	Analysis and Design Method of Multiple-Output Switched-Capacitor Voltage Regulators With a Reduced Number of Power Electronic Components. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 3234-3247.	5.4	5
65	A 5GHz LNA with new compact gain controllable active balun for ISM band applications. , 0, , .		4
66	Silicon-based PIN SPST RF switches for improved linearity. , 2010, , .		4
67	An Echo-Canceller-less NFIC- TSV Hybrid 3D Interconnect for Simultaneous Bidirectional Vertical Communication. , 2018, , .		4
68	A Low Power Active-Passive Dual Gm-boosted W-band Oscillator for Wireless Network-on-Chip Applications. , 2018, , .		4
69	An X-band LC VCO Using a New Boosted Active Capacitor With 53 % Tuning Range and -202.4 dBc/Hz FoM <sub>T</sub> . , 2020, , .		4
70	An ultra-low voltage UWB CMOS low noise amplifier. , 2006, , .		3
71	High Performance PIN Diode in 0.18- $\mu\text{m}$ SiGe BiCMOS Process for Broadband Monolithic Control Circuits. , 2006, , .		3
72	Energy efficient 136 Mb/s OOK implantable transmitter for wireless brain computer interface. , 2010, , .		3

#	ARTICLE	IF	CITATIONS
73	Performance evaluation and receiver front-end design for on-chip millimeter-wave wireless interconnect. , 2010, , .		3
74	A 12&#x2013;40 GHz low phase variation highly linear BiCMOS variable gain amplifier. , 2013, , .		3
75	Reconfigurable phased-array design techniques for 5G and beyond communications. , 2017, , .		3
76	Energy-efficient and robust 3D NoCs with contactless vertical links (Invited paper). , 2017, , .		3
77	Dual-Equalization-Path Energy-Area-Efficient Near Field Inductive Coupling for Contactless 3D IC. , 2019, , .		3
78	A new 0.25- $\mu$ m CMOS doubly balanced sub-harmonic mixer for 5-GHz ISM band direct conversion receiver. , 0, , .		2
79	High isolation 10GHz to 20 GHz SPDT switch design using novel octagonal pin diode structure. , 0, , .		2
80	A 5 GHz novel 0.18- $\mu$ m inductor-less CMOS sub-harmonic mixer. , 0, , .		2
81	Enhanced Gm3 Cancellation For Linearity Improvement in CMOS LNAs. , 0, , .		2
82	A 1.1V Low Phase Noise CMOS Quadrature LC VCO with 4-Way Center-tapped Inductor. , 2007, , .		2
83	Low phase noise load independent switched LC VCO. , 2010, , .		2
84	A V-band wide locking-range injection-locked CMOS VCO for wireless network-on-chip receiver. , 2013, , .		2
85	A low leakage pull-down network for PLL with 6.7 dB improvement in reference spur. , 2013, , .		2
86	Performance evaluation of wireless NoCs in presence of irregular network routing strategies. , 2014, , .		2
87	A Sub-1V Analog-Assisted Inverter-Based Digital Low-Dropout Regulator with a Fast Response Time at 25mA/100ps and 99.4% Current Efficiency. , 2019, , .		2
88	Clock-Voltage Co-Regulator With Adaptive Power Budget Tracking for Robust Near-Threshold-Voltage Sequential Logic Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 622-633.	5.4	2
89	Investigation of CMOS Technology for 60-GHz Applications. , 0, , .		1
90	A 1V Wide Tuning Range VCO for UHF DTV Tuner. , 2007, , .		1

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91	Load independent bulk-coupled low power quadrature LC VCO. , 2012, , .		1
92	Guest Editors' Introduction: Design and Testing of Millimeter-Wave/Subterahertz Circuits and Systems. IEEE Design and Test, 2014, 31, 6-7.	1.2	1
93	Hierarchical Design Methodology and Optimization for Proximity Communication based Contactless 3D ThruChip Interface. , 2019, , .		1
94	Wideband RFI Cancellation Using true-time delays and a Hadamard Projection Operator. , 2021, , .		1
95	A Novel Low Voltage and Low Power 0.18- $\mu\text{m}$ Inductor-less CMOS Even-Harmonic Mixer. , 2006, , .		0
96	A Fast Computation Method in Frequency Domain for Power Ground Plane Impedance Calculation Using the Mobius Transform. IEEE Transactions on Advanced Packaging, 2008, 31, 320-325.	1.6	0
97	PWM-skipping technique for overshoot and undershoot mitigation. International Journal of Electronics Letters, 2017, 5, 395-401.	1.2	0