IEEE JOURNAL OF

SOLID-STATE CIRCUITS

A PUBLICATION OF THE IEEE SOLID-STATE CIRCUITS SOCIETY



JUNE 2018 VOLUME 53 NUMBER 6 IJSCBC (ISSN 0018-9200)

REGULAR PAPERS	
Wideband Dual-Injection Path Self-Interference Cancellation Architecture for Full-Duplex Transceivers	
T. Zhang, C. Su, A. Najafi, and J. C. Rudell	1563
A Reconfigurable Architecture Using a Flexible LO Modulator to Unify High-Sensitivity Signal Reception and	
Compressed-Sampling Wideband Signal Detection	
T. Haque, M. Bajor, Y. Zhang, J. Zhu, Z. A. Jacobs, R. B. Kettlewell, J. Wright, and P. R. Kinget	1577
Design and Analysis of a Programmable Receiver Front End Based on Baseband Analog-FIR Filtering Using an LPTV	
Resistor S. Hameed and S. Pamarti	1592
A Chopping Switched-Capacitor RF Receiver With Integrated Blocker Detection Y. Xu and P. R. Kinget	1607
A 0.18-V 382-μW Bluetooth Low-Energy Receiver Front-End With 1.33-nW Sleep Power for Energy-Harvesting	
Applications in 28-nm CMOS	1618
Design of 1.8-mW PLL-Free 2.4-GHz Receiver Utilizing Temperature-Compensated FBAR Resonator	
K. Wang, L. Qiu, J. Koo, R. Ruby, and B. Otis	1628
A Near-Zero-Power Wake-Up Receiver Achieving —69-dBm Sensitivity	
	1640
A 500-MHz Bandwidth 7.5-mV _{pp} Ripple Power-Amplifier Supply Modulator for RF Polar Transmitters C. Kim,	
CS. Chae, YS. Yuk, C. M. Thomas, YG. Kim, JK. Kwon, S. Ha, G. Cauwenberghs, and GH. Cho	1653
Split-Array, C-2C Switched-Capacitor Power Amplifiers Z. Bai, A. Azam, D. Johnson, W. Yuan, and J. S. Walling	1666
Power-Efficient W-Band (92–98 GHz) Phased-Array Transmit and Receive Elements With Quadrature-Hybrid-Based	
Passive Phase Interpolator	1678
A Self-Tuning Resonant-Inductive-Link Transmit Driver Using Quadrature Symmetric Delay Trimmable	
Phase-Switched Fractional Capacitance	1694
A 2.4-GHz RF Fractional-N Synthesizer With BW = $0.25 f_{REF}$	1707
Digital Fractional-N PLLs Based on a Continuous-Time Third-Order Noise-Shaping Time-to-Digital Converter for a	
240-GHz FMCW Radar System	1719

(Contents Continued on Back Cover)



0.04-mm ² 103-dB-A Dynamic Range Second-Order VCO-Based Audio ΣΔ ADC in 0.13-μm CMOS	
F. Cardes, E. Gutierrez, A. Quintero, C. Buffa, A. Wiesbauer, and L. Hernandez	1731
A Bypass-Switching SAR ADC With a Dynamic Proximity Comparator for Biomedical Applications	
	1743
A 12-bit 150-MS/s Sub-Radix-3 SAR ADC With Switching Miller Capacitance Reduction	
KH. Chang and CC. Hsieh	1755
A 12-Bit 1.6, 3.2, and 6.4 GS/s 4-b/Cycle Time-Interleaved SAR ADC With Dual Reference Shifting and	
Interpolation	1765
An FFE Transmitter Which Automatically and Adaptively Relaxes Impedance Matching	
M. Choi, S. Lee, M. Lee, JH. Lee, JY. Sim, HJ. Park, and B. Kim	1780
1.23-pJ/bit 25-Gb/s Inductor-Less Optical Receiver With Low-Voltage Silicon Photodetector	
M. Moayedi Pour Fard, O. Liboiron-Ladouceur, and G. E. R. Cowan	1793
Low-Jitter Multi-Output All-Digital Clock Generator Using DTC-Based Open Loop Fractional Dividers	
	1806
A 6.75–8.25-GHz –250-dB FoM Rapid ON/OFF Fractional-N Injection-Locked Clock Multiplier	
	1818
An EEG-NIRS Multimodal SoC for Accurate Anesthesia Depth Monitoring	
	1830
0.293-mm ² Fast Transient Response Hysteretic Quasi-V ² DC–DC Converter With Area-Efficient Time-Domain-Based	
Controller in 0.35-\mu CMOS	1844
A Hysteretic Buck Converter With 92.1% Maximum Efficiency Designed for Ultra-Low Power and Fast Wake-Up	
SoC Applications F. Santoro, R. Kuhn, N. Gibson, N. Rasera, T. Tost, H. Graeb, B. Wicht, and R. Brederlow	1856
COMMENTS AND CORRECTIONS	
Corrections to "Precision Passive-Charge-Sharing SAR ADC: Analysis, Design, and Measurement Results"	
B. Chen, M. Maddox, M. C. W. Coln, Y. Lu, J. Shen, and L. D. Fernando	1869
Corrections to "Energy-Efficient Hybrid Analog/Digital Approximate Computation in Continuous Time"	
	1870