

IEEE

MICROWAVE AND WIRELESS COMPONENTS LETTERS.[®]

A PUBLICATION OF THE IEEE MICROWAVE THEORY AND TECHNIQUES SOCIETY



JANUARY 2016

VOLUME 26

NUMBER 1

IMWCBJ

(ISSN 1531-1309)

LETTERS

Theory and Numerical Methods

Numerical De-Embedding of Effective Wave Impedances of Substrate Integrated Waveguide With Varied Via-to-Via Spacings	<i>Q.-S. Wu and L. Zhu</i>	1
Time Domain Objective Function Based on Euclidean Distance Matrix and its Application in Optimization of Short Pulse Power Divider	<i>S. Li, L. Liu, X. Yin, and H. Zhao</i>	4

Passive Components and Circuits

Tunable Balanced Bandpass Filter With Wide Tuning Range of Center Frequency and Bandwidth Using Compact Coupled-Line Resonator	<i>H. Zhu and A. M. Abbosh</i>	7
A Novel Tunable Absorber Based on Vertical Graphene Strips	<i>Y.-L. Xu, E.-P. Li, X.-C. Wei, and D. Yi</i>	10
Compact Switchable Bandpass Filter and Its Application to Switchable Diplexer Design	<i>J. Xu</i>	13
Dual-Band Balanced Bandpass Filter With Common-Mode Suppression Based on Electrically Small Planar Resonators ..	<i>P. Velez, J. Bonache, and F. Martin</i>	16
Compact Integrated Lumped Element LCP Filter	<i>L. Hepburn and J. Hong</i>	19
Fully-Reconfigurable Bandpass/Bandstop Filters and Their Coupling-Matrix Representation	<i>D. Psychogiou, R. Gómez-García, and D. Peroulis</i>	22
An Intrinsically Switchable, Monolithic BAW Filter Using Ferroelectric BST	<i>S. A. Sis, S. Lee, V. Lee, and A. Mortazawi</i>	25

Electron Devices and Device Modeling

Electrostatically-Actuated 4H-SiC In-plane and Out-of-Plane High Frequency MEMS Resonator	<i>A. V. Lim, T. Karacolak, J.-Y. Jiang, C.-F. Huang, and F. Zhao</i>	28
Impact of Trapping Effects on the Recovery Time of GaN Based Low Noise Amplifiers	<i>O. Axelsson, N. Billström, N. Rorsman, and M. Thorsell</i>	31

(Contents Continued on Back Cover)

<i>Hybrid and Monolithic RF Integrated Circuits</i>		
An Adaptively Biased Class-C VCO With a Self-Turn-Off Auxiliary Class-B Pair for Fast and Robust Startup	J.-H. Song, B.-S. Kim, and S. Nam	34
Low Insertion Loss, Compact 4-bit Phase Shifter in 65 nm CMOS for 5G Applications	G.-S. Shin, J.-S. Kim, H.-M. Oh, S. Choi, C. W. Byeon, J. H. Son, J. H. Lee, and C.-Y. Kim	37
A High Efficiency E-Band CMOS Frequency Doubler With a Compensated Transformer-Based Balun for Matching Enhancement	Y. Ye, B. Yu, A. Tang, B. Drouin, and Q. J. Gu	40
Slotline Switch Based on a Lattice Circuit	G. E. Ponchak	43
A Design Approach for Two Stages GaN MMIC PAs With High Efficiency and Excellent Linearity	R. Giofré, P. Colantonio, and F. Giannini	46
A G-Band High Power Frequency Doubler in Transferred-Substrate InP HBT Technology	M. Hossain, K. Nosaeva, B. Janke, N. Weimann, V. Krozer, and W. Heinrich	49
Design of a Post-Matching Asymmetric Doherty Power Amplifier for Broadband Applications	J. Pang, S. He, Z. Dai, C. Huang, J. Peng, and F. You	52
A High-Efficiency GaAs MMIC Power Amplifier for Multi-Standard System	X. Ding and L. Zhang	55
A SiGe BiCMOS Power Amplifier Using a Lumped Element-Based Impedance Tuner ...	G. Lee, J. Jung, and J.-I. Song	58
A 65 nm CMOS 330 Mb/s Microwave Backscatter Link at 2.4 to 2.9 GHz With Ambient Blocker Cancellation	A. Tang, Y. Kim, and M.-C. F. Chang	61
A 6Bit Vector-Sum Phase Shifter With a Decoder Based Control Circuit for X-Band Phased-Arrays	B. Cetindogan, E. Ozeren, B. Ustundag, M. Kaynak, and Y. Gurbuz	64
<i>Measurement Techniques, System Modeling Techniques, and Applications</i>		
A Filter-Free Photonic Microwave Single Sideband Mixer	Z. Tang and S. Pan	67
Beam Steering Phased Array Antenna With Fully Printed Phase Shifters Based on Low-Temperature Sintered BST-Composite Thick Films	M. Nikfalazar, C. Kohler, A. Wiens, A. Mehmood, M. Sohrabi, H. Maune, J. R. Binder, and R. Jakoby	70
A 370 μ W CMOS MedRadio Receiver Front-End With Inverter-Based Complementary Switching Mixer	C. Choi, K. Kwon, and I. Nam	73
