

2026 IEEE Wireless and Microwave Technology Conference (WAMICON 2026)

**Clearwater, Florida, USA
20-21 April 2026**

IEEE Catalog Number:
ISBN:

CFP26WMC-POD
979-8-3315-8346-0



Copyright © 2026, IEEE

All Rights Reserved

Copyright and Reprint Permissions:

Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP26WMC-POD
ISBN (Print-On-Demand):	979-8-3315-8346-0
ISBN (Online):	979-8-3315-8345-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA

Phone:	(845) 758-0400
Fax:	(845) 758-2633
E-mail:	curran@proceedings.com
Web:	www.proceedings.com

TABLE OF CONTENTS

Cross-coupled Colpitts Voltage-controlled Oscillator with Tail Orthogonal Transformers	1
<i>Wen-Cheng Lai, Sheng-Lyang Jang, Fu-Yi Teng</i>	
Physical-Layer Authentication of Aircraft via Radio-Frequency Fingerprinting of ADS-B Transmissions	5
<i>Tarokh Baniadam, Eduardo A. Rojas-Nastrucci</i>	
Experimental Extraction and Analysis of Varactor Loss Using Tunable Microwave Resonators	9
<i>Rosalind Agasti, Daniel Nichols, Jessica E. Ruyle, Hjalti H. Sigmarsson</i>	
Time-Divisional Duplex (TDD) Radio Front-End using Co-Designed Tunable Filtering Balanced-to-Doherty Power Amplifier	13
<i>Alex D. Santiago-Vargas, Mohamed F. Hagag, Dimitrios Peroulis, Kenle Chen</i>	
Dual-Input Vector-Switched Behavioral Model for Multi-Antenna Scenarios Affected by Antenna Crosstalk	17
<i>David Riess, Alexander Deublein, Michael Loose, Christian Musolff, Georg Fischer, Christian Fager</i>	
Fully Automated and EM-Circuit-Co-Simulated Inverse Design of Wideband Harmonic-Engineered Power Amplifier	21
<i>Niteesh Bharadwaj Vangipurapu, Pingzhu Gong, Jiachen Guo, Kenle Chen</i>	
Millimeter-Wave Software-Defined SFCW Radar with 2 GHz Synthesized Bandwidth	25
<i>Shivani Sharma, Stavros Vakalis</i>	
Millimeter-Wave Interferometric Radar for Non-Contact Water Surface Velocity Measurement	29
<i>Sayed Kaonain, Shivani Sharma, Samuel Ogunsina, Stavros Vakalis</i>	
Wideband Harmonic-Engineered Doherty-Like Load-Modulated Double-Balanced Amplifier with Intrinsic VSWR Resilience	33
<i>Mehran Rasheed, Pingzhu Gong, Niteesh Bharadwaj Vangipurapu, Morteza Sedaghat, Kenle Chen</i>	
Distributed Fourier Domain Microwave Imaging Using High-Accuracy Wireless Time Synchronization	37
<i>Derek Luzano, Naim Shandi, Jorge R. Colon-Berrios, Sherwin Shiran, Jason M. Merlo, Jeffrey A. Nanzer</i>	
A Frequency-Agile Fully-Integrated 890nW 2.4-GHz Wake-Up Receiver with -82 dBm Sensitivity	41
<i>Wolfgang Gläser, Florian Eiermann, Dieter Frühsorger, Sebastian Glöckle, Mahfuz Md Hossain Heinrich Milosiu, Ralf Brederlow</i>	
An Impedance-Boosted Ka-Band Colpitts VCO with a PN_1 MHz of -107 dBc/Hz in 90 nm SiGe BiCMOS Technology	45
<i>Timur Isbilen, Sascha Breun, Nils Arneth, Albert-Marcel Schrotz, Manuel Koch, Alexander Berwald Robert Weigel, Norman Franchi</i>	
Towards Autonomous RF Payload Nodes: Enabling Spaceborne RF Experiments and Standalone Payload Data Downlink via SDRs	49
<i>Jan Budroweit, Ferdinand Stehle, Felix Eichstaedt</i>	
A Broadband 2–14 GHz GCPW-Integrated Orientation-Sensitive Magnetostatic Field Sensor	53
<i>Sanjida Sultana, Daniel Hedlund, Piotr Kulik</i>	

An Additive Manufactured 3 dB-Waveguide-Coupler Based on Freeform Surfaces for G-Band	57
<i>Felix Bachbauer, Simon Pietschmann, Tobias Bader, Gerald Gold</i>	
Experimental Demonstration of Controlled Near-Field Patterns using Waveguide-Fed Metasurfaces	61
<i>Dong Hwan Min, Insang Yoo</i>	
Two Concepts of 3D-Printed Mechanically Tunable Phase Shifters Based on Rectangular Waveguides	65
<i>S. Pietschmann, I. Ustinov, T. Bader, F. Bachbauer, G. Gold</i>	
Analysis of Linearity Degradation due to Clock Routing Delay In Digital Transmitters	69
<i>Behdad Jamadi, Jungmin Lee, Jeffrey Sean Walling</i>	
Proposed Dual-Input Control of the Pseudo-LMBA for Enhanced Efficiency and Output Backoff	73
<i>Invited Paper</i>	
A 2.34-GHz Wide Dynamic Range Self-Synchronous Doherty Power Rectifier	77
<i>Alexandra Montgomery, Cody Scarborough, Zoya Popović</i>	
Adaptive and Reconfigurable Hardware Implementation Strategy for ISAC	81
<i>Charles Baylis, Austin Egbert, Jonathan E. Swindell, Rebekah Edwards, David W. Cox, Adam C. Goad Robert J. Marks</i>	
A Temperature-Robust 12–16 GHz 3W GaAs Power Amplifier for Ku-band SatCom and Radar Applications	85
<i>Masud Aziz, Carlo Poledrelli</i>	
A Feedback-Based Model for Predicting Instability in Distributed Radar-Repeater Networks	89
<i>Alecia Bechtold, Tasin Nusrat, Stavros Vakalis</i>	
Microwave Characterization of a V-band Rydberg-Atom Electrometer	93
<i>Georgia Sandidge, John Guthrie, Zoya Popovic</i>	
Scalable and Programmable Control Unit for True Time Delay Beamforming Applications	97
<i>Shehryar Niazi, Muhammad Uzair, Ayesha Naseem, Hanxiang Zhang, Saeed Zolfaghary Pour, Hao Yan Fei Yan, Bayaner Arigong</i>	
A Periodic Slow-Wave Microstrip Structure for High-Resolution Microwave Sensing Applications	101
<i>Martins Atilla, Lawrence E. Larson</i>	
Switch-Based Interferometric Antenna Arrays Using Software-Defined Radio and Cascaded Neural Networks	105
<i>Roberto Montero, Russell Odell, Harshen Patel, Riley Jeffries, Shivani Sharma, Stavros Vakalis</i>	
Fabrication-Aware Inverse Design of Multiport Microwave Power Splitters Using Additive Manufacturing	109
<i>Saeed Zolfaghary Pour, Muhammad Uzair, Ayesha Naseem, Shehryar Niazi, Hanxiang Zhang, Powei Liu Hao Yan, Fei Yan, Jonathan Casamayor, Bayaner Arigong</i>	
Even-Order Filtering Equalizer Design Considerations	113
<i>Jonathan M. Knowles, Russell H. Kenney, Hjalti H. Sigmarsson</i>	
E-Scooter-Mounted mmWave FMCW Radar for Urban Terrain Characterization and Collision Avoidance	117
<i>Fardin Shariar, Jaeyoon Kim, Davi V. Q. Rodrigues</i>	

3D Printed Low-Crosstalk High Speed Interconnect	121
<i>Simon Hart, Muhammad Uzair, Shehryar Niazi, Powei Liu, Ayesha Naseem, Hanxiang Zhang, Mia Reynolds Bayaner Arigong</i>	
Exact-Inverse of Memory Behavioral PA Model for Indirect-Learning Digital Predistorter Linearization	125
<i>Emad Embarak, Patrick Roblin, Hamza Salem</i>	
Tunable, Higher-Order, N-Path Bandpass Filters Using Elliptical Lowpass Filter Loads	129
<i>Abdul Rakib Hossain, Nishant Patil, Sasank Garikapati, Harish Krishnaswamy, Aravind Nagulu</i>	
Concurrent Speech-Related Throat Vibration and Vital Signs Sensing Using a mmWave Radar	133
<i>Eduarda V. M. Santos, Davi Valerio de Queiroz Rodrigues</i>	
Impact of Timing Uncertainty on the FMCW Radar Range-Doppler Spurs	137
<i>Wen Zhou, Gennady Feygin, Viduneth Ariyaratna, Pranav Dayal, Joonhoi Hur</i>	
Programmable Densely Integrated Large Array Front-End Systems with Dynamic Channel Synthesis and Allocation	141
<i>Pascal Burasa, Seyed Ali Keivaan, Yasser Bigdeli, Jie Deng, Ke Wu</i>	
Occlusion-Aware I/Q-Domain Decomposition of Human Micro-Doppler Returns Using a Multi-Task Deep Learning Network	145
<i>William J. Riley, Aijun Song, Sevgi Z. Gurbuz</i>	
Co-Design of Doherty Power Amplifier with a Novel Quadrature-Combining Filter	149
<i>Shakthi Priya Gowri, Jongheun Lee, Morteza Sedaghat, Nitesh B. Vangipurapu, Jiachen Guo, Juseop Lee Kenle Chen</i>	
A GaN MMIC Power Amplifier Model Derived from Active Load-Pull Measurements	153
<i>Yaqub Mahsud, Taylor Barton, Gustavo Avolio, Mauro Marchetti</i>	
7-8.4 GHz PA with Reconfigurable Output Matching Network for PAE Recovery	157
<i>Henna Jethani, Zoya Popović, Laila Marzall</i>	
Inverse-Designed Microwave Quadrature Hybrid Coupler Utilizing Hexagonal Configuration	161
<i>Pei Wen Shu, Wing Shing Chan, Baihua Zeng, Xinyu Zhou</i>	
Elevation-Aware Supplementary Uplink for Direct Satellite-to-Device Communications	165
<i>Rajan Shrestha, Hayder Al-Hraishawi</i>	
Deep Learning-Aided OFDM Doppler Estimation with Low Latency for Future 6G-ISAC Systems	169
<i>Buldan Karahan, Mehmet Yazgan, Stavros Vakalis, Hüseyin Arslan</i>	
UV-Curable Additive Manufacturing for 3D RF Integration	173
<i>Nicholas Sturim, Premjeet Chahal, Matthew Hodek, John D. Albrecht, John Papapolymerou</i>	