
ELECTROMAGNETIC WAVES
PIERC 112

Progress

In

Electromagnetics

Research C

© 2021 EMW Publishing. All rights reserved.

No part of this publication may be reproduced. Request for permission should be addressed to the Publisher.

All inquiries regarding copyrighted material from this publication, manuscript submission instructions, and subscription orders and price information should be directed to: EMW Publishing, P. O. Box 425517, Kendall Square, Cambridge, Massachusetts 02142, USA.

ELECTROMAGNETIC WAVES
PIERC 112

Progress
In
Electromagnetics
Research C

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

DOA Estimation of Mixture Signals Based on the PSA Wen Dong, Qianrong Lu, Siyuan Wu, Shujie Lei, and Bin Pu	1
Dual-Band Subharmonic Mixer for WIFI Application with Improved Conversion Loss and RF-to-IF Isolation Kumari Pushpa and Jayanta Ghosh	11
Simultaneous Measurement of Temperature and Strain Using Multi-Core Fiber with In-Line Cascaded Symmetrical Ellipsoidal Fiber Balls-Based Mach-Zehnder Interferometer Structure Farhan Mumtaz, Hongfeng Lin, Yutang Dai, Wenbin Hu, Muhammad A. Ashraf Lashari G. Abbas, Shu Cheng, and Pu Cheng.....	21
A New Reflectionless Filter Composed of Discharging Circuit Aixia Yuan, Shaojun Fang, Ying Wang, Yulin Feng, and Tielin Zhang	35
An Analysis of High Selectivity and Harmonic Suppression Based on Stepped-Impedance Resonator Structure for Dual-Mode Diplexer Jessada Konpang and Natchayathorn Wattikornsirikul	45
Design and Performance Analysis of G-Shaped Compact ACS Fed 4-Port MIMO Antenna for Triple Frequency Band Applications Praveen V. Naidu, Akkapanthula Saiharanadh, Dhanekula Maheshbabu, Arvind Kumar and Neelima Vummadisetty	55
Research on Conducted EMI Characteristics of SiC MOSFET Considering Temperature Effect Mingxing Du, Weiguo Bian, Hongbin Wang, Qiqi Dai, and Ziwei Ouyang	69
Inset-Fed Planar Antenna Array for Dual-Band 5G MIMO Applications Umair Rafique, Shobit Agarwal, Nasir Nauman, Hisham Khalil, and Khalil Ullah	83
Stubs and Slits Loaded Partial Ground Plane Inspired Hexagonal Ring-Shaped Fractal Antenna for Multiband Wireless Applications: Design and Measurement Narinder Sharma and Sumeet S. Bhatia	99
Enhanced Ultra-Wide Band Multistage Rectifier for Pulsed Signal Power Transmission Ahmed Moulay and Tarek Djerafi	113
Wide-Band Log-Periodic Microstrip Antenna with Defected Ground Structure for C-Band Applications Kunal K. Upadhyay, Alkesh Agrawal, and Mukul Misra	127
Circularly Polarized Multiple Layer Dielectric Resonator Antennas Richa Gupta, Ankit Gaur, Sandeep Gupta, and Garima Bakshi	139

Substrate Integrated Waveguide Slot Array Antenna for 77 GHz Automotive Angular Radar Applications

Xin Liao, Xing Jiang, Xue-Long Zhu, Lin Peng, Kai-Fa Wang, Ji-Heng Wang, and Li-Mei Huang 153

A Dual-Band, Miniaturized, AMC-Based Wearable Antenna for Health Monitoring Applications

Bo Yin, Ming Ye, Youhai Yu, and Jing Gu 165

An Improvised Non-Invasive Method with Clutter Removal for Dielectric Characterization of Terrestrial Rock Samples at S-Band Frequency

Anamiya Bhattacharya, Deepak Putrevu, Dharmendra K. Pandey, and Arundhati Misra 179

Compact Quad-Port High Performance UWB MIMO/Diversity Antenna with Slotted Ground Structure

Pankaj Kumar Keshri, Richa Chandel, Sanjay Sahu, and Anil Kumar Gautam 193

A High Isolation Multiband MIMO Antenna without Decoupling Structure for WLAN/WiMAX/5G Applications

Dhanasekaran Dileepan, Somasundaram Natarajan, and Rengasamy Rajkumar 207

Compact-Size Quad-Band Patch and MIMO Antenna System for 5G Mobile Handsets

May A. El-Hassan, Asmaa E. Farahat, and Khalid F. A. Hussein 221

A Comparative Study of Some Novel Wideband Tulip Flower Monopole Antennas with Modified Patch and Ground Plane

Nurhayati Nurhayati, Alexandre M. De-Oliveira, Warangkana Chaihongsa, Bagus E. Sukoco and Akbar K. Saleh 239

Triangular Shaped QMSIW Cavity Back Slot Antenna for Tri-Band Operation

Dokuparthi Jagadeesh and Alapati Sudhakar 251