
ELECTROMAGNETIC WAVES
PIERC 68

Progress

In

Electromagnetics

Research C

© 2016 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 68

Progress
In
Electromagnetics
Research C

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

On Instabilities in Time Marching Methods	
Juan Becerra, Félix Vega, and Farhad Rachidi	1
Efficiency Enhancement of Wireless Power Transfer System Using MNZ Metamaterials	
Tarakeswar Shaw, Aritra Roy, and Debasis Mitra	11
A Novel Rectangle Tree Fractal UWB Antenna with Dual Band-Notched Characteristics	
Zhangfang Hu, Yinping Hu, Yuan Luo, and Wei Xin	21
Design of Single-Band to Hexa-Band Bandstop Filters	
Ashwani Kumar, Anand K. Verma, Qingfeng Zhang, Parmod Kumar, Praduman P. Singh Rajendar P. Rishishwar, Abhishek Singh, Ankita Bansal, and Ritu	31
High-Gain Planar Lens Antennas Based on Transformation Optics and Substrate-Integrated Waveguide (SIW) Technology	
Iman Aghanejad, Habibollah Abiri, and Alireza Yahaghi	45
Bandwidth Enhancement of UWB Dual-Polarized Antennas	
Nina Lorho, William Hubert, Sébastien Lestieux, Anne Chousseaud, and Tchanguiz Razban	57
A Vivaldi Antenna with Switchable and Tunable Band-Notch Characteristic	
Deqiang Yang, Huiling Zeng, Sihao Liu, and Jin Pan	75
Circularly Polarized Substrate Integrated Waveguide Cavity-Backed Antenna with Enhanced Bandwidth for Wideband Wireless Applications	
Tian Li, Fu-Shun Zhang, Fei Gao, and Yan-Li Guo	85
Design of Compact Multiband Antenna with Band-Rejection Features for Mobile Broadband Satellite Communications	
Lamyae Akrou, Otman Aghzout, Henrique J. A. da Silva, and Mohamed Essaaidi	95
A Novel High-Gain Directional Lens Antenna for Terahertz Band	
Wu Pan, Wei Zeng, Xuan Yu, and Jun Zhang	107
Reconfigurable Band-Notched Slot Antenna Using Short Circuited Quarter Wavelength Microstrip Resonators	
Hany A. Atallah, Adel B. Abdel-Rahman, Kuniaki Yoshitomi, and Ramesh K. Pokharel	119
Randomly Overlapped Subarrays for Angular-Limited Scan Arrays	
Davide Bianchi, Simone Genovesi, and Agostino Monorchio	129
A Novel Magneto-Electric Monopole Antenna for C Band Wireless Applications	
Neetu, Ganga P. Pandey, and Vivekanand N. Tiwari	141

A Novel Low RCS Microstrip Antenna Array Using Thin and Wideband Radar Absorbing Structure Based on Embedded Passives Resistors	
Madhu A. Ramkumar, Chandrika Sudhendra, and Kark Rao	153
Analysis and Design of E-CRLH TL Characteristics with New Closed-Form Solutions	
Hien Ba Chu and Hiroshi Shirai	163
Design and Analysis of a Frequency Reconfigurable Microstrip Patch Antenna switching between Four Frequency Bands	
Isra Nazir, Inam Elahi Rana, Noor ul Ain Mir, and Kanwal Afreen	179
Conical Beam Monopole Antenna Design for Chinese Area Positioning System	
Feng Pang, Guoxiang Ai, Jungang Yin, Yue Ma, Chao Hu, Junxia Cui, Lihua Ma Chan Hwang See and Raed A. Abd-Alhameed	193
Efficient Higher-Order Analysis of Electromagnetic Scattering of Objects in Half-Space by Domain Decomposition Method with a Hybrid Solver	
Lan-Wei Guo, Jun Hu, Wan Luo, Lian-Ning Song, and Zaiping Nie	201
A Broadband Low Cross-Polarization U-Slot Patch Antenna Array Based on Differential Feed	
Zhimin Zhu, Chunhong Chen, Yunjiao Chen, and Wen Wu	211
Two-Way Modified Wilkinson Power Divider for UWB Applications Using Two Sections of Unequal Electrical Lengths	
Shaimaa A. Osman, Ayman M. El-Tager, Fawzy Ibrahim, and Ismael M. Hafez	221