
ELECTROMAGNETIC WAVES
PIERL 91

Progress

In

Electromagnetics

Research Letters

© 2020 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
PIERL 91

Progress
In
Electromagnetics
Research Letters

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

Dual Band Planar Antenna for GSM and WiMAX Applications with Inclusion of Modified Split Ring Resonator Structure	
Upesh Patel and Trushit K. Upadhyaya	1
A Novel Saliency-Based Method for Ship Detection in SAR Image	
Tingpeng Li, Hua Zhong, and Meng Yang	9
Analysis of Resonant Characteristics of E- and H-Plane Waveguide Junctions with Local Dielectric Inclusions	
Yuriy M. Penkin, Victor A. Katrich, Mikhail V. Nesterenko, Sergey L. Berdnik and Natalia K. Blinova	17
Ultrawideband Notch Antenna with EBG Structures for WiMAX and Satellite Application	
Ravichandran Sanmugasundaram, Somasundaram Natarajan, and Rengasamy Rajkumar	25
Optimal Design of Magnetic Planetary Gear Permanent Magnet Machines	
Yi Fei Yang, Chun Hua Sun, and De Lin Hu	33
Dual Circularly Polarized Crescent-Shaped Slot Antenna for 5G Front-End Systems	
Naser Ojaroudi Parchin, Haleh Jahanbakhsh Basherlou, and Raed A. Abd-Alhameed	41
On the Possibility of Using Non-Ionizing Electromagnetic Radiation (Millimeter Waves) in Oncology	
Vitaly P. Kalantaryan, Radik Martirosyan, Yura Babayan, and Ruzanna Khazaryan	49
Multi-Band Printed Monopole Antenna Conforming Bandwidth Requirement of GSM/WLAN/WiMAX Standards	
Jayshri Kulkarni	59
Analysis of the Effect of Temperature on the Wideband Characteristics of EMI Filters	
Dong Chao, Chen Han, and Mingxing Du	67
Mid-Infrared Micro-Displacement Measurement with a Bidimensional Silicon Photonic Crystal	
Tarek Zouache and Abdesselam Hocini	77
Compact Dual-Band Wilkinson Power Divider Terminated with Frequency-Dependent Complex Impedances	
Xiao Jia, Shao-Jun Fang, Hongmei Liu, and Zhongbao Wang	85
Modeling Thin Graphene Sheets in the WLP-FDTD Algorithm with Surface Boundary Condition	
Wei-Jun Chen, Qi-Wen Liang, Shi-Yu Long, and Min Zhao	93

Miniaturized Notched Ultra-Wideband Antenna Based on EBG Electromagnetic Bandgap Structure

Liang Zhang, Shijie Huang, Zhixiang Huang, Changqing Liu, Chao Wang, Zhiwei Wan
Xingchuan Yu and Xianliang Wu 99

An Analytical Hybrid Model for the Shielding Effectiveness Evaluation of a Dual-Cavity Structure with an Aperture Array

Hai Jin, Hongliang Zhang, Yurun Ma, Kejian Chen, and Xinfeng Sun 109

Flexi Electrode Electron Gun for Long Life Traveling-Wave Tubes

Abhay Shankar, Atmakuru Nagaraju, Amitavo R. Choudhury, and Sanjay K. Ghosh 117

A Deadbeat Current Control Method for Switched Reluctance Motor

Qianni Li, Aide Xu, Lifang Zhou, and Chaoyi Shang 123

Filterless 16-Tupled Optical Millimeter-Wave Generation Using Cascaded Parallel Mach-Zehnder Modulators with Extinction Ratio Tolerance

Aasif B. Dar, Faroze Ahmad, and Rakesh K. Jha 129

Broadband Circularly Polarized CPW-Fed Asymmetrically-shaped Slot Patch Antenna for X Band Applications

Boualem Mekimah, Tarek Djerafi, Abderraouf Messai, and Abdelkrim Belhedri 137

Low Cost Substrate Based Compact Antennas for 4G/5G Side-Edge Panel Smartphone Applications

Issmat Shah Masoodi, Insha Ishteyaq, Khalid Muzaffar, and Muhammad Idrees Magray 145

A Compact Dual-Band and Dual-polarized Antenna Integrated into Textile for WBAN Dual-Mode Applications

Leitao Zhou, Shaojun Fang, and Xiao Jia 153