
ELECTROMAGNETIC WAVES

PIERL 79

Progress

In

Electromagnetics

Research Letters

© 2018 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 79

Progress
In
Electromagnetics
Research Letters

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

A Cavity-Backed Wideband Circularly Polarized Crossed Bowtie Dipole Antenna with Sequentially Rotated Parasitic Elements	
Yapeng Li, Zhipeng Zhao, Jinhai Liu, and Yingzeng Yin	1
Design of a Broadband Fixed IF Sub-Harmonic Mixer at Ka Band	
Jianhong Hou, Heng Xie, Xing Li, Hongtao Zhang, Minghua Zhao, and Yong Fan	9
A Compact UWB Band Pass Filter Using Simple Defected Ground Structures	
Ali Mokhtarani and Arash Ahmadi	17
Modified CMRC LPF Using Novel Fractal Patches	
Mohammed E. Yassin, Hesham A. Mohamed, Esmat A. F. Abdallah, and Hadia S. El-Hennawy .	25
Planar Differential Filtenna for Communications	
Tejinder Kaur Kataria, Marisol Bastida, Jose Roberto Reyes-Ayona, Jose Luis Olvera Cervantes and Alonso Corona-Chavez	33
Dual-Mode BPF with Four Transmission Zeros Using S-L Coupling Structure with Quadratic Function Coupling Coefficient	
Fei Liu, Tao Xu, Liang Sun, Yi-Fan Xue, and Hong-Wei Deng	39
Harmonic Suppressed Compact Stepped Impedance Uniplanar Dipole Antenna for WLAN Applications	
Manoj Mani, Remsha Moolat, Kesavath Vasudevan, and Pezhohil Mohanan	45
Design of Multiple Band, Meandered Strips Connected Patch Antenna	
Amjad Iqbal, Amal Bouazizi, Omar A. Saraereh, Abdul Basir, and Ravi K. Gangwar	51
Microfluidic Reconfigurable Filter Based on Ring Resonators	
Tejinder Kaur, Leider Osorio, Jose L. Olvera-Cervantes, Roberto Reyes-Ayona and Alonso Corona-Chavez	59
A Novel Quad-Band Bandstop Filter Based on Coupled-Line and Shorted Stub-Loaded Half-Wavelength Microstrip Resonator	
Jun-Mei Yan, Liang-Zu Cao, and Hai-Ying Zhou	65
Ferrofluid Actuation Based Frequency Reconfigurable Patch Antenna	
Rocktotpal Baruah and Nidhi S. Bhattacharyya	71
Stacked Conical-Cylindrical Hybrid Dielectric Resonator Antenna for Improved Ultrawide Bandwidth	
Ali A. Al-Azza, Nuhad A. Malalla, Frances J. Harackiewicz, and Kiyun Han	79

High Gain Flexible CPW Fed Fractal Antenna for Bluetooth/WLAN/WPAN/WiMAX Applications

Maitri Kantharia, Arpan Desai, Trushit Upadhyaya, Riki Patel, Parthesh Mankodi
and Mukul Kantharia 87

An Array Partitioning Scheme of Airborne Phased-MIMO Radar Based on STAP SINR

Wei Wang, Lin Zou, and Xuegang Wang 95

Using Homogeneous Equivalent Parameters in Finite Element Models of Curved Metamaterial Structures

Richard Mattish, Fabio Alves, and Dragoslav Grbovic 103

Concept of Experimental Simulator for Studying Longitudinal Magnetic Wave Propagation in Dielectric Samples

Yuriy M. Penkin, Viktor A. Katrich, Dmitriy Yu. Penkin, and Mikhail V. Nesterenko 109

Polarization Matched Radiating Array for Electronically Steered Phased Array Antenna

Raj Kumar, Pramendra Kumar Verma, Rajesh Roy, and Machavaram Venkata Kartikeyan 115

Half-Arrow Slot Antenna for Inter-Satellite Communications

Maha Maged, Fatma Elhefnawi, Haitham Akah, Abdelrahman El-Akhdar, and Hadia El-Hennawy 121

Miniaturized and Folded Multisection Quadrature Hybrid for UWB Applications

Zhikuang Cai, Bo Zhou, Peiqi Chen, Lingxuan Huang, Ninglin Wang, and Xuan Ni 129

Investigation of a Silicon-Based High Integration Reconfigurable Dipole

Han Su, Huiyong Hu, Heming Zhang, and Yuanhao Miao 135