Progress

In

Electromagnetics

Research C
Progress
In
Electromagnetics
Research C

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA
CONTENTS

Dual-Polarized Multi-Band Infrared Energy Harvesting Using H-Shaped Metasurface Absorber
Thamer S. Almoneef and Omar M. Ramahi ....................................................... 1

A Two-Stage Approach for Frequency Response Modeling and Metamaterial Rapid Design
Xiao Guo, Chunlin Ji, Ruopeng Liu, and Tao Tang............................................. 11

A Novel High-Gain Cavity Slot Antenna Based on Polarization Twist Reflector for High Power Microwave Applications
Hong-Yin Zhang, Fu-Shun Zhang, and Fan Zhang ........................................... 23

Efficient Sparse Imaging Reconstruction Algorithm for Through-the-Wall Radar
Lele Qu, Xing Cheng, and Tianhong Yang ....................................................... 33

Unbalanced-to-Balanced Power Divider With Arbitrary Power Division
Amar Nath Yadav and Ratnajit Bhattacharjee .................................................. 43

High Impedance Properties of Two-Dimensional Composite Right/Left-Handed Transmission Lines
Eiichi Sano and Masayuki Ikebe ................................................................. 55

A 6.6 GHz Quadrature Frequency Synthesizer with −78 dBc Reference Spur for UWB Application
Minghua Wang, Xiaosong Wang, Yu Liu, and Haiying Zhang ............................ 63

A Moment-Based Study on the Impedance Effect of Mutual Coupling for VLF Umbrella Antenna Arrays
Bin Li, Chao Liu, and Hua-Ning Wu .............................................................. 75

A Compact MIMO Antenna with Improved Isolation for 3G, 4G, Wi-Fi, Bluetooth and UWB Applications
Pratima C. Nirmal, Anil Nandgaonkar, Sanjay Nalbalwar, and Rajiv K. Gupta ........... 87

A Miniaturized Bandpass Frequency Selective Surface with High Selectivity Base on Slot Coupling
Shilin Yang, Qiang Chen, Jiajun Bai, and Yunqi Fu ........................................ 99

Very Compact 5.5 GHz Band-Notched UWB-MIMO Antennas with High Isolation
Zhiwei Liu, Xiliang Wu, Yueyuan Zhang, Peng Ye, Zhiqing Ding, and Cheng Hu ....... 109

Wide-Angle Polarization Independent Triple Band Absorber Based on Metamaterial Structure for Microwave Frequency Applications
Khusboo Kumari, Naveen Mishra, and Raghvendra Kumar Chaudhary ................. 119
Interference Analysis and Experimental Results of Passive UHF RFID Systems in Sub-1 GHz Wireless Communications Systems
Ji-Hong Kim, Jong-Won Kwon, Jin-Yong Kim, Min-Gyo Jeong, Sang-Hyeon Bae, and Wang-Sang Lee .................. 129

Further Wideband RCS Reduction on Metasurface by Introducing a Phasor Interference Element
Tong Han, Xiang-Yu Cao, and Jun Gao .......................................................... 139

Design of a Simple Structured NFC Loop Antenna for Mobile Phones Applications
Byungje Lee and Frances J. Harackiewicz ................................................. 149

A 5.8-GHz Planar Beam Tracking Antenna Using a Magic-T
Rimi Rashid, Eisuke Nishiyama, and Ichihiko Toyoda ........................................ 159

A Compact Microstrip Lowpass Filter with Sharp Roll-off Rate and Ultra-Wide Stopband Employing Coupled Polygon Patches
Ashkan Abdipour, Arash Abdipour, and Fereshteh Lorestani ......................... 171

Using Open Stubs and Tuning the Width of Output Microstrip Lines in a Balun Diplexer to Obtain Matching Output Impedance with a RF Output Transceiver

New Simple Flower Shaped Reconfigurable Band-Notched UWB Antenna Using Single Varactor Diode
Hesham A. Mohamed, Ahmed S. Elkorany, Sammar A. Saad, and Demyana A. Saleeb .......... 197

A Single Layer S/X-Band Series-Fed Shared Aperture Antenna for SAR Applications
Venkata Kishore Kothapudi and Vijay Kumar ............................................ 207