
ELECTROMAGNETIC WAVES
PIERM 107

Progress

In

Electromagnetics

Research M

© 2022 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
PIERM 107

Progress
In
Electromagnetics
Research M

Chief Editors: Weng Cho Chew and Sailing He

EMW Publishing
Cambridge, Massachusetts, USA

CONTENTS

Numerical Simulation and Application of Response Characteristics of High-Frequency Dielectric Logging Instrument	
Chen Li, Shaogui Deng, Zhiqiang Li, Yiren Fan, Jingjing Zhang, and Jutao Yang	1
A Triple Band Highly Sensitive Refractive Index Sensor Using Terahertz Metamaterial Perfect Absorber	
Sagnik Banerjee, Purba Dutta, Amitkumar V. Jha, Prabhat R. Tripathi, Avireni Srinivasulu, Bhargav Appasani, and Cristian Ravariu	13
Retrieval of Mesospheric Neutral Wind Based on AgileDARN HF Radar	
Guangming Li	25
Design of Penta-Band Notched UWB MIMO Antenna for Diverse Wireless Applications	
Ramesh B. Sadineni and Dinesha P. Gowda	35
A Compact Dielectric Resonator Based Dual Port Circularly Polarized MIMO Antenna for Wideband Applications	
Piyali Chakraborty, Utsab Banerjee, Anuradha Saha, and Anirban Karmakar	51
Combination of Dual-Model-Base Adaptive Sampling Algorithm and Adaptive Cross Approximation for Fast Computation of Broadband RCS	
Ziyue Cheng, Yueyuan Zhang, Longfeng Xi, and Zhiwei Liu	65
X-Band Multilayer Butler Matrix and SIW Multi-Beam Antenna: Analysis and Design	
Moustapha Mbaye, Larbi Talbi, Siwar Louati, Khelifa Hettak, and Halim Boutayeb	79
Proximity Fed Triple Band David Fractal 2×1 Microstrip Patch Array Antenna with DGS	
Jacob Abraham	91
A Six-Port Slot Antenna System with Wideband and High-Isolation for 5G NR Bands	
Weidong Mu, Zhonggen Wang, Ming Yang, Wenyan Nie, and Pan Wang	105
A Parasitic Array Based Pattern Reconfigurable Patch Antenna for Wi-Fi 6E Application	
Bhaben Saikia and Kunal Borah	119
Analytical and Numerical Studies of Oblique Wave Incidence on Impedance-Matched Graded Interfaces between RHM and LHM Media	
Brage B. Svendsen, Balwan Rana, and Mariana Dalarsson	131
Design of Substrate Integrated Folded Waveguide H-Plane Horn Antenna Array with Simultaneous Omnidirectional and Directional Radiation Characteristics	
Wriddhi Bhowmik and Shweta Srivastava	141

Durable Silicon Rubber-Based Miniaturized Antenna with Concentric Circle Structure for Medical Telemetry Application

Navin M. George and Thomas Anita Jones Mary Pushpa 155

Load-Independence-Based Composite Compensation Network and Control Strategy for Wireless Electric Vehicle Charging System

Wenzhou Lu, Runmin Liu, Xiangxiu Chen, Jian Zhao, Qigao Fan, and Chendawei Zhang 167

Compact, Dual-Polarized, Oblong Loop Antenna for 5G Laptops

Saou-Wen Su 181

An Approximate Closed-Form Solution of Compensating for Beam Pointing Error with Uniform Linear Arrays

Shuaizhao Li, Zhongjun Yu, Qiang Zhang, Chengxiang Hao, and Ning Cui 193

Investigation of On-Body Antenna Performance Using Motion Capture Technique and Statistical Analysis

George Lee, Daniel Agu, Brian Garner, and Yang Li 205

In-Situ Measurement Method of Radiation Emission Based on Nonuniform Array and Adaptive Noise Cancelling

Shouyang Zhai, Hezhihan Fan, Zhongyuan Zhou, Yan Chen, Dan Chen, Xiang Zhou, and Li Ma 217

An Analytic Model for Stripline/Microstrip Potential Using Infinite Series with Mixed Boundary Conditions

James R. Nagel 231

Optimizing Turn-on Angle and External Rotor Pole Shape to Suppress Torque Ripple of a Novel Switched Reluctance Motor

Chaozhi Huang, Jinfeng Duan, Wei Liu, and Yuliang Wu 243