

2017 Sixth Asia-Pacific Conference on Antennas and Propagation (APCAP 2017)

**Xi'an, China
16-19 October 2017**

Pages 1-536



**IEEE Catalog Number: CFP1707S-POD
ISBN: 978-1-5386-1609-3**

**Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1707S-POD
ISBN (Print-On-Demand):	978-1-5386-1609-3
ISBN (Online):	978-1-5386-1608-6
ISSN:	2381-5523

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

RECENT ADVANCES ON OTA TESTING FOR 5G ANTENNA SYSTEMS IN MULTI-PROBE ANECHOIC CHAMBER SETUPS	1
<i>Wei Fan ; Gert F. Pedersen ; Pekka Kyösti ; Aki Hekkala ; Tommi Jämsä ; Mattias Gustafsson</i>	
5G ANTENNA SYSTEM OTA TESTING WITH PLANE WAVE GENERATOR IN RANGE-CONSTRAINED ANECHOIC CHAMBER	4
<i>Xiaohui Zhang ; Zhihua Zhang ; Yujuan Ma</i>	
PERFORMANCE EVALUATION OF SECTORED MPAC FOR 5G UE ANTENNA SYSTEMS	7
<i>Aki Hekkala ; Pekka Kyösti ; Jukka Kyröläinen ; Lassi Hentilä ; Wei Fan</i>	
CHALLENGES AND OPPORTUNITIES ON INTELLIGENT VEHICLE TESTS IN ANECHOIC CHAMBER	10
<i>Jianmei Lei ; Yang Xu ; Tian Tian ; Rui Chen ; Min Chen ; Jin Jia</i>	
EMULATING A MOVING CLUSTER IN A MASSIVE MIMO OTA TEST SCENARIO	13
<i>Doug Reed ; Alfonso Rodriguez-Herrera</i>	
CHALLENGES ON WIRELESS PERFORMANCE TESTING FOR 5G MASSIVE MIMO	16
<i>Guangyi Liu ; Yi Zheng ; Yan Li</i>	
SLANT 45° POLARIZED MULTI-FREQUENCY CYLINDRICAL SLOT-DIPOLE ANTENNA	20
<i>H. Arai ; B. Rohani ; R. Kaneda</i>	
BROAD-ANGLE BEAM SCANNING SIW LEAKY-WAVE SLOTTED ANTENNA	23
<i>Du-juan Wei ; Jian-ying Li ; Rui Xu ; Jiang-jun Yang ; Yang-xiao Qi</i>	
PLANAR END-FIRE CIRCULARLY POLARIZED ANTENNA WITH WIDE BANDWIDTH	25
<i>Xinmeng Lv ; Weiping Ding ; Wenquan Cao ; Zhiyuan Zeng</i>	
A WIDEBAND TRI-POLARIZED ANTENNA AT 2.4 GHZ FOR ARRAY APPLICATION	28
<i>Zhi-Peng Liu ; Ruo-Fan Li ; Bin Li ; Yong Liu ; Xin Lv</i>	
LEAKY COAXIAL CABLE FOR NEAR-FIELD UHF RFID APPLICATIONS	31
<i>Jinjun Jiang ; Lu Wang ; Gang Wang</i>	
STUDY OF FREQUENCY-ALTERABLE MICROSTRIP ANTENNA BASED ON TEMPERATURE SENSING MATERIAL	34
<i>Penghui Fu ; Yuan Yao ; Xiaoming Liu ; Limei Qi ; Zhijiao Chen ; Junsheng Yu ; Xiaodong Chen</i>	
MINIATURIZATION MICROSTRIP ANTENNA DESIGN BASED ON ARTIFICIAL ELECTROMAGNETIC STRUCTURE	37
<i>Qian Wang ; Ning Mu ; Linli Wang ; Jingping Liu ; Ying Wang</i>	
UHF RFID TAG ANTENNA DESIGN FOR FAR-DISTANCE APPLICATION AND LARGE-SCALE MANUFACTURE	40
<i>Huijun Chen ; Hongwei Shen</i>	
ANALYSIS OF REFLECTOR SURFACE DISTORTIONS BY COMPUTER SIMULATION	43
<i>Shen Junhao ; Zhang Ye</i>	
RESEARCH ON REFLECTIVE CIRCULAR POLARIZATION ANTENNA BASED ON ELECTROMAGNETIC CONTROL	46
<i>Yongguang Zhou ; Minquan Li ; Xu Pan ; Chunchun Shen ; Shandong Wang ; Xuanxuan Li</i>	
HIGH-GAIN SUBSTRATE INTEGRATED CAVITY ANTENNA FOR W-BAND APPLICATIONS	49
<i>Xiao-Chuan Wang ; Chen-Wu Yu ; Xian-Long Lu ; De-Chao Qin</i>	
COMPACT MAGNETO-ELECTRIC DIPOLE ANTENNA WITH LOW-PROFILE FOR LTE FEMTOCELL BASE STATIONS	52
<i>Yanyang Liu ; Minquan Li ; Yu Zhang ; Yingbo Wu ; Xiaopan Xia</i>	
A 16-BIT CHIPLESS RFID TAG WITH QUASI-COMPLEMENTARY STRUCTURE	55
<i>Jia Song ; Xiuping Li ; Hua Zhu</i>	
WIDE-BEAM CIRCULARLY POLARIZED MICROSTRIP ANTENNA WITH HIGH FRONT-TO-BACK RATIO FOR CNSS APPLICATION	58
<i>Yuan Yuan ; Min Wang ; YuFeng Yin ; Wen Wu</i>	
A NOVEL DUAL-BAND RESONATOR ANTENNA LOADED WITH THREE DIELECTRIC SLABS	61
<i>Gao-Peng Zhong ; Yin-Hua Yu ; Zhi-Yuan Zong ; Wen Wu ; Da-Gang Fang</i>	
AN ELECTRONICALLY CONTROLLED CRLH TRANSMISSION-LINE LEAKY-WAVE ANTENNA	64
<i>Jiaxin Feng ; Shaoqiu Xiao ; Jiabo Liu</i>	
A COMPACT WIDEBAND FILTERING QUASI-YAGI ANTENNA	67
<i>Hang Yin ; Min Wang ; JianPeng Wang ; Wen Wu</i>	
A KU-BAND GROOVE GAP WAVEGUIDE ANTENNA BASED ON TAYLOR LINE SOURCE METHOD	70
<i>Xingchao Dong ; Hongjian Wang ; Fei Xue ; Yang Liu</i>	
A SINGLE-PROBE FEED SLOT ANTENNA WITH HIGH-GAIN AND LOW SIDELobe PROPERTY	73
<i>Wenfang Peng ; Wenquan Cao ; Zuping Qian</i>	
COMPACT TRIPLEX MICROSTRIP SLOT ANTENNA BASED ON TRIPLE FEEDING TYPES	76
<i>Yanghui Tong ; Zuping Qian ; Wenquan Cao</i>	
LEAKY-WAVE ANTENNA WITH SLOTS ON SUBSTRATE INTEGRATED NON-RADIATIVE DIELECTRIC WAVEGUIDE	79
<i>P.F. Kou ; Y.J. Cheng</i>	

ANTENNA ABSORPTION EFFICIENCY AND BEAM EFFICIENCY OF A MICROWAVE POWER TRANSMISSION SYSTEM.....	82
<i>N. Shinohara ; Y. Tsukamoto</i>	
TAPERED SLOT ANTENNA ARRAY FOR 5G WIRELESS COMMUNICATION SYSTEMS.....	85
<i>Pengfei Liu ; Xiaowei Zhu ; Hongjun Tang ; Xiang Wang ; Wei Hong</i>	
SEAWATER ELECTROMAGNETIC PROPAGATION BETWEEN TWO FOLDED-DIPOLES AT ISM-BAND	88
<i>Chunbo Wu ; Bingxin Liu</i>	
MINIATURIZED CIRCULARLY POLARIZED ANTENNA BY THE SPIRAL SLOTS ON THE GROUND PLANE.....	91
<i>Songtao Yu ; Haobin Zhang ; Dan Yu</i>	
DESIGN OF FOUR APERTURE NON-UNIFORM COVERAGE MULTI-BEAM ANTENNA IN KA-BAND.....	94
<i>Ye Wenxi ; Tao Xiao ; Wan Jixiang ; Ding Wei</i>	
DESIGN OF A LOW-PROFILE BASE-STATION ANTENNA	97
<i>Wei Shi ; Qing-Xin Chu</i>	
A COMPACT PLANAR ANTENNA DESIGNED FOR ALL-METAL-SHELL HANDSET APPLICATION	100
<i>Chong-Zhi Han ; Guan-Long Huang ; Mo-Lin Fan ; Tao Yuan</i>	
DESIGN OF A NEW METAL-ONLY REFLECTARRAY USING SQUARE LOOP AND SPIRAL STRUCTURE.....	103
<i>Yang Liu ; Hongjian Wang ; Guang Liu ; Xingchao Dong</i>	
DESIGN OF A TRANSPARENT REFLECTARRAY INTEGRATED WITH SOLAR CELLS USING QUAD-KEY ELEMENT	106
<i>Yang Liu ; Hongjian Wang ; Guang Liu ; Xingchao Dong</i>	
SINGLE PROBE-FED DUAL-BAND DUAL-CIRCULARLY POLARIZED ANTENNA FOR SATELLITE APPLICATIONS.....	109
<i>Jun Wang ; Ruofan Li ; Kang An ; Xianghui Wang ; Jun Zheng ; Shaojun Wang</i>	
CONCEPTUAL DESIGN OF PLANAR ENDFIRE CIRCULARLY POLARIZED ANTENNA WITH ENHANCED DIRECTIVITY	112
<i>Kang Wang ; Wen-Jun Lu</i>	
A LOW-PROFILE WIDEBAND PHASED ARRAY ANTENNA WITH PARASITIC ELEMENT FOR WIDE ANGLE SCANNING	115
<i>Ya-Ru Wang ; Shi-Wei Qu</i>	
BANDWIDTH-ENHANCED OF A VERY SIMPLE CIRCULARLY POLARIZED SQUARE SLOT ANTENNA WITH OFFSET FEED AND MODIFIED GROUND PLANE.....	118
<i>Jie Liu ; Jian-ying Li ; Rui Xu ; Du-Juan Wei</i>	
DESIGN AND ANALYSIS OF A COMPACT CPW-FED UWB ANTENNA WITH QUADRUPLE NOTCHED BANDS.....	121
<i>Zeng-Pei Zhong ; Qing-Fa Zeng ; Chong-Zhi Han ; Mo-Lin Fan ; Guan-Long Huang ; Tao Yuan</i>	
DESIGN OF A COMPACT CPW-FED MONOPOLE ANTENNA WITH MULTIPLE BAND-NOTCHED CHARACTERISTICS FOR UWB APPLICATIONS	124
<i>Qing-Fa Zeng ; Zeng-Pei Zhong ; Chong-Zhi Han ; Mo-Lin Fan ; Guan-Long Huang ; Tao Yuan</i>	
WIDEBAND RCS REDUCTION USING TWO DIMENSIONAL PHASE GRADIENT METASURFACE	127
<i>Wenbo Zhang ; Ying Liu ; Shuxi Gong</i>	
A DUAL-BAND AND DUAL-POLARIZATION ANTENNA WITH TWO NESTED TRIANGULAR RINGS	129
<i>Linli Jiang ; Chunlan Lu ; Wenquan Cao ; Changsong Wu ; Feng Yuan</i>	
A WIDEBAND MULTIFUNCTIONAL METASURFACE FOR ANTENNA APPLICATION	132
<i>Wei Chen ; Jun Gao ; Xiang-Yu Cao ; Si-Jia Li ; Zhao Zhang</i>	
FREQUENCY RECONFIGURABLE BOW-TIE ANTENNA WITH ARTIFICIAL MAGNETIC CONDUCTOR LOADING	135
<i>Tong Li ; Xiangyu Cao ; Qi Li ; Jun Gao ; Huanhuan Yang</i>	
TOPOLOGY OPTIMIZATION OF PATCH ANTENNAS WITH SPECIFIED POLARIZATION AND BEAM CHARACTERISTICS	138
<i>Xue-Song Yang ; Jian Wang ; Bing-Zhong Wang</i>	
RESEARCH ON STATISTICAL CHARACTERISTICS FOR THE PART-SHADOWING CHANNEL MODEL	141
<i>Wenping Ren ; Fuhua An ; Dongya Shen ; Bowen Liu ; Xianghui Shan</i>	
DESIGN OF AN ON-BODY MATCHED WIDE-SLOT UWB ANTENNA FOR BRAIN ACTIVITIES DETECTION	144
<i>Chaoji Zheng ; Xing Jiang ; Bo Kang ; Xiaoming Li ; Zhe Geng</i>	
COEXISTENCE ISSUES CONCERNING 4G AND MMWAVE 5G ANTENNAS FOR MOBILE TERMINALS.....	147
<i>Yeonwoo Kim ; Wonbin Hong</i>	
DUAL-FREQUENCY SIW CAVITY-BACKED SLOT ANTENNA USING TWO HIGH-ORDER MODES	150
<i>Kai-Da Xu ; Wenxun Li ; Yanhui Liu</i>	
GENERATION OF PLANE SPIRAL ORBITAL ANGULAR MOMENTUM MICROWAVE WITH RING DIELECTRIC RESONATOR ANTENNA	153
<i>Ruofan Dong ; Yiling Chen ; Shilie Zheng ; Xianbin Yu ; Xiaofeng Jin ; Hao Chi ; Xianmin Zhang</i>	
A LOW PIM FREQUENCY AND POLARIZATION MULTIPLEXING KU-BAND FEED CHAINS FOR SATELLITE ANTENNAS	156
<i>Qiao-shan Zhang ; Jin-gang Gong ; Zhi Xu ; Yu-hua Li ; Ming-tao Zhang ; Qing-li Lv ; Lei Zhang</i>	
PLANER SLOT ANTENNA BASED ON TRIANGLE CORRUGATED SUBSTRATE INTEGRATED WAVEGUIDE CAVITY.....	159
<i>Siyuan Yao ; Feng Xu ; Jian Yang ; Lewei Cao</i>	

WIDEBAND ANTENNA DESIGN AND SAR COMPARISON FOR ELECTRONIC CAPSULE ENDOSCOPY	162
<i>Lulu Cai ; Ze Yang ; Mengjun Wang ; Hongxing Zheng ; Xia Wang ; Jianfei Liu</i>	
CHIPLESS UWB-RFID TAG WITH SPECTRAL AND TEMPORAL JOINT SIGNATURES	165
<i>Jian Liu</i>	
DESIGN AND ANALYSIS OF 3D CIRCULAR WAVEGUIDE FREQUENCY SELECTIVE STRUCTURE	168
<i>Tianhao He ; Weiming Li ; Wu Ren ; Zhenghui Xue</i>	
MODE ANALYSIS OF INVERTED V-SHAPED MICROSTRIP LEAKY WAVE ANTENNA	171
<i>Abhishek Kandwal ; Qingfeng Zhang ; Yifan Chen ; X. Tang ; R. Das ; T. Guo</i>	
DIFFERENTIALLY FED SLOT ANTENNA WITH DUAL BAND AND WIDE-BEAM RADIATION PATTERN	174
<i>Jiajia Guo ; Shaoqiu Xiao ; Shaowei Liao ; Quan Xue</i>	
HIGH SCANNING-RATE PERIODIC LEAK-WAVE ANTENNAS USING COMPLEMENTARY MICROSTRIP-SLOTLINE STUBS	177
<i>Jianwen Chen ; Qingfeng Zhang</i>	
DESIGN OF WEARABLE ANTENNA WITH COMPACT ARTIFICIAL MAGNETIC CONDUCTOR REFLECTING PLATE	180
<i>Yan-Ning Yuan ; Jiao-Jie Feng ; Xiao-Li Xi</i>	
A COMPACT TRI-BAND ANTENNA FOR GPS AND GSM APPLICATIONS	183
<i>Yaning Wang ; Ying Li ; Qi Zhu</i>	
A SIMPLE TUNABLE MONOPOLE ANTENNA WITH SHARP CONTROLLED NOTCHED BANDS	186
<i>Zhenlong Liu ; Changjun Liu</i>	
WIDEBAND DUAL-POLARIZED MICROSTRIP ANTENNA ARRAY WITH HIGH-ISOLATION AND LOW CROSS-POLARIZATION	188
<i>Wenjie Zhang ; Mang He ; Xiaowen Xu ; Chuanfang Zhang</i>	
WIRELESS ENERGY HARVESTING FROM HZ TO GHZ	191
<i>Yi Huang ; Chaoyun Song ; Sheng Yuan ; Jiafeng Zhou ; Paul Carter</i>	
DIRECTION FINDING USING TIME MODULATED ARRAY	194
<i>Ronghong Jin ; Jingfeng Chen ; Chong He ; Xianling Liang ; Weiren Zhu ; Junping Geng</i>	
THE DEVELOPMENT IN SWITCHABLE FSS RADOMES	197
<i>Zhang Qiang</i>	
A CHIPLESS RFID UNIT BASED ON INTERFERENCE FOR TAG LOCATION	200
<i>Nuanfeng Zhang ; Xiongying Liu ; Tianhai Chang</i>	
DESIGN OF INLINE SIXTH ORDER SINGLE-LAYERED SIW FILTER WITH CROSS COUPLINGS BASED ON MEANDERING ELECTRIC COUPLING STRUCTURE	203
<i>Chang Jiang You ; Zhi Ning Chen ; Xiao Wei Zhu</i>	
AN DATA PATTERN OPTIMIZED METHOD FOR SIMULTANEOUS SWITCHING NOISE SUPPRESSION AND GOOD SIGNAL INTEGRITY IN HIGH SPEED SYSTEM DESIGN	206
<i>T. H. Ding ; B. S. Xu ; F. Guan ; X. Yan</i>	
INFLUENCE OF PACKAGE PARASITIC INDUCTANCE ON TRANSIENT CURRENT DISTRIBUTION CHARACTERISTICS OF PRESS PACK IGBT	209
<i>Shenyang Mo ; Zhibin Zhao ; Peng Sun ; Ying Lu ; Xinling Tang</i>	
A COMPACT COMMON-MODE SUPPRESSION FILTER FOR DIFFERENTIAL SIGNAL TRANSMISSION WITH SLOW-WAVE STRUCTURE	212
<i>Wan-Li Jiang ; Min Tang ; Junfa Mao</i>	
ACCURATE AND EFFICIENT ANALYSIS OF POWER AND GROUND PLANES BASED ON WLP-FDTD	215
<i>Wei Sun ; Xiaochun Li ; Junfa Mao</i>	
MILLIMETER-WAVE DIELECTRIC RESONATOR ANTENNA PROXIMITY-COUPLED WITH A MICROSTRIP PATCH	218
<i>H. Zheng ; M. Wang ; J. Bao ; E. Li</i>	
DESIGN OF NEW DUAL-BAND LEFT-HANDED MATERIAL BASED ON MIRROR “GIANT” SHAPE	221
<i>Xuanxuan Li ; Minquan Li ; Chunchun Shen ; Xu Pan ; Shandong Wang ; Yongguang Zhou</i>	
DESIGN AND SIMULATION OF LEFT-HANDED MATERIAL STRUCTURE BASED ON REGULAR HEXAGONAL METAL	224
<i>Chunchun Shen ; Minquan Li ; Xuanxuan Li ; Yongguang Zhou ; Shandong Wang ; Xu Pan</i>	
MULTI-LAYER STACKED 3D UHF-BAND MINIATURIZED FREQUENCY SELECTIVE STRUCTURE	227
<i>Tianhao He ; Weiming Li ; Wu Ren ; Zhenghui Xue</i>	
DESIGN OF A MULTILAYER FSS TRANSMISSION HIGH-GAIN ANTENNA ARRAY AND ANALYSIS OF THE BEAM CONTROL	230
<i>Tianliang Zhang ; Long Li ; Rui Xi</i>	
AMC-BASED HIGH-ISOLATION SIW SLOT ARRAY ANTENNAS FOR KA-BAND SAR SYSTEMS	233
<i>Yuanyan Su ; Zhi Ning Chen</i>	
CIRCULARLY POLARIZED CROSS-SLOT ANTENNA ARRAY FED BY SUBSTRATE INTEGRATED WAVEGUIDE	236
<i>YuFeng Yin ; Min Wang ; Na Wu ; Wen Wu</i>	
MODIFIED SILICON MICROMACHINING PROCESS WITH AIR CAVITIES AND SILICON-TO-AIR TRANSITIONS FOR LOW-LOSS MILLIMETER-WAVE ANTENNA TAPE-OUT	239
<i>Peiqin Liu ; Yue Li ; Zhijun Zhang ; Zhenghe Feng</i>	
WIDEBAND SIW HORN ANTENNA LOADED WITH OFFSET DOUBLE-SIDED PARALLEL-STRIP LINES	242
<i>Yufan Cao ; Yingsong Zhang ; Yang Cai ; Zuping Qian</i>	

DESIGN OF A LOW PROFILE WIDEBAND CIRCULARLY POLARIZED MAGNETIC-ELECTRIC DIPOLE ANTENNA ARRAY	245
<i>Wen Tian ; Mang He ; Xiaowen Xu ; Chuanfang Zhang</i>	
COMPOSITE RIGHT/LEFT-HANDED ANTENNA BASED ON TRIANGLE SUBSTRATE INTEGRATED WAVEGUIDE CAVITY	248
<i>Wenjian Chen ; Feng Xu ; Jian Yang ; Siyuan Yao</i>	
LOW-PROFILE BILAYER METASURFACE INTEGRATED ANTENNA FOR CELLULAR BASE STATIONS	251
<i>Srien Sithara Syed Nasser ; Zhi Ning Chen</i>	
QUANTITATIVE CHARACTERISTIC MODE FAR-FIELD RELATIONS IN ANALYZING UNIDIRECTIONAL HIGH-DIRECTIVE ESAS	254
<i>Ruiyang Li ; Gao Wei</i>	
LEAKY-WAVE RADIATION FROM PERIODICALLY MODULATED SPOOF SURFACE PLASMON POLARITONS	257
<i>Zhixia Xu ; Xin Zhang ; Shunli Li ; Hongxin Zhao ; Xiaoxing Yin</i>	
A RADIATION PATTERN RECONFIGURABLE YAGI ANTENNA	260
<i>Bing-Long Zheng ; Guang-Hua Sun ; Shi-Yan Zhou ; Sai-Wai Wong</i>	
A SIMPLE PRINTED MIMO ANTENNA PAIR WITH HIGH ISOLATION PERFORMANCE	263
<i>Ziyang Wang ; Luyu Zhao ; Yuanming Cai ; Yingzeng Yin</i>	
GENERATING THE DUAL-MODE VORTEX ELECTROMAGNETIC WAVE BY DESIGNING AND ANALYSING OF DUAL-BAND ANTENNA ARRAY	266
<i>Peng Xu ; Cheng Zhu ; Changhong Liang</i>	
THROUGH-THE-WALL IMAGING BASED ON MODIFIED COMPRESSIVE SAMPLING MATCHING PURSUIT	269
<i>Y. Gao ; W. Peng ; Y. Qu ; J. Ding</i>	
MONITORING BLOOD GLUCOSE FLUCTUATION USING SIW CAVITY WITH A COUPLING SLOT	272
<i>Kaidi Xie ; Louis W. Y. Liu ; Qingfeng Zhang ; Qingsha Cheng</i>	
A LOW-RCS AND HIGH-GAIN PARTIALLY REFLECTING SURFACE ANTENNA BASED ON CODING METASURFACE	275
<i>Lei Zhang ; Hao Tian Wu ; Tie Jun Cui</i>	
TUNABLE SPOOF LOCALIZED SURFACE PLASMONS ON DUAL CORRUGATED DISKS	278
<i>L. Yang ; Y. J. Zhou ; Q. X. Xiao ; C. Zhang</i>	
THE DESIGN OF FIVE BAND MICROSTRIP ANTENNA	281
<i>Lu Tian ; Zhenghui Xue ; Weiming Li ; Wu Ren</i>	
DESIGN OF A COMPACT DUAL-BAND UHF ANTENNA FOR PAP HELICOPTER EMERGENCY RESCUE COMMUNICATION SYSTEM	284
<i>Danqing Wang ; Ping Li</i>	
DESIGN OF 0.14 THZ LENS INTEGRATED ON-CHIP ANTENNA WITH DEFECTED GROUND STRUCTURE	287
<i>Xiong Xiao ; Dalu Guo ; Haidong Qiao ; Xin Lv ; Weihua Yu</i>	
DESIGN OF A DUAL BEAM MICROSTRIP ANTENNA FOR FUTURE 5G COMMUNICATION NETWORKS	290
<i>Jingyu Tan ; Shuxi Gong ; Wen Jiang</i>	
DESIGN OF HIGH GAIN REFLECTARRAY ANTENNA FOR 77GHZ APPLICATIONS	292
<i>Mustafa K. Taher Al-Nuaimi ; Wei Hong ; Abdelhady Mahmoud</i>	
BANDWIDTH IMPROVEMENT FOR LOW-PROFILE HORIZONTAL OMNIDIRECTIONAL SIW HORN ANTENNA BY LOADING WITH STRIPS	295
<i>Linli Jiang ; Chunlan Lu ; Wenquan Cao ; Changsong Wu</i>	
BAND BROADENING DESIGN OF A KU BAND PLANAR SLOT ARRAY ANTENNA	298
<i>Fuping Hou ; Ting Zheng</i>	
RESEARCH ON THE DESIGN TECHNIQUES OF MUSHROOM SHAPED ARTIFICIAL MAGNETIC CONDUCTOR	301
<i>Bo Han ; Shibing Wang ; Qiang Zhao</i>	
A PATCH ANTENNA WITH FREQUENCY SCANNING CHARACTERISTIC	304
<i>Chunmei Meng ; Jin Shi ; Qinghua Cao ; Wenwen Yang ; Jian Wang</i>	
DESIGN OF A BROADBAND DUAL-POLARIZED MICROSTRIP ANTENNA ARRAY WITH HIGH ISOLATION	307
<i>Min Kai ; Fu-ping Hou ; Dan Sun</i>	
STUDY OF RECONFIGURABLE CIRCULAR POLARIZATION GNSS ANTENNA	310
<i>Ying Li ; Yuan Yao ; Xiaoming Liu ; Limei Qi ; Zhijiao Chen ; Junsheng Yu ; Xiaodong Chen</i>	
POLARIZATION ANALYSIS OF A CAVITY-BACKED CIRCULARLY POLARIZED SLOT ANTENNA	313
<i>Ping Li ; Hanshuang Jia</i>	
SIMULATION ANALYSIS ON THE CALCULATION OF MESH BRAIDED FOLDING REFLECTOR ANTENNA PERFORMANCE	316
<i>Zuoling Niu ; Junfang Zhang ; Peipei Zhang ; Li Ping</i>	
STUDY ON A WAY TO BROADEN THE BEAMWIDTH OF MICROSTRIP ANTENNA BY VERTICAL CURRENT	319
<i>Guangwei Yang ; Jianying Li ; Dujuan Wei</i>	
EFFECTIVE METHODS FOR ANALYZING AND IMPROVING ANTENNA ISOLATION	321
<i>Sun Ruiqi ; Gao Lu ; Yan Jing ; Chen Shuyuan ; Zheng Pei ; Wang MingLiang ; Wu RunHui</i>	

DESIGN OF A CIRCULARLY POLARIZED OMNI-DIRECTIONAL ZOR ANTENNA FOR 5G MILLIMETER WAVE	324
<i>Kai Sun ; Lin Peng ; Xing Jiang</i>	
A CIRCULARLY POLARIZED SLOT ANTENNA WITH ENHANCED AXIAL RATIO BANDWIDTH	327
<i>Hui-fen Huang ; Bin Wang</i>	
SIMULATION AND ANALYSIS OF THE SUBSTRATE INTEGRATED WAVEGUIDE SLOT ANTENNA FED BY COAXIAL CABLE	330
<i>Song Lizhong ; Lin Wei ; Sun Bo ; Li Sai</i>	
MICROSTRIP-LINE-SLOT-FED SQUARE-RING PATCH ANTENNA WITH DUAL-BAND BORE-SIGHT RADIATION PATTERNS	333
<i>Wenquan Cao ; Zhiyuan Zeng ; Changliang Deng ; Wei Hong</i>	
A W-BAND REFLECTARRAY ANTENNA ON CONFORMAL PARABOLIC CYLINDER PLATFORMS	336
<i>Quan Wang ; Sen Feng ; Zhengxin Fang ; Ming Chen ; Mouping Jin</i>	
PATHOLOGICAL CHARACTERISTICS OF ANTENNA POLARIZATION IN RADAR POLARIZATION PARAMETER ESTIMATION	339
<i>Wang Daoyou ; Dai Huanyao ; Liu Wenzhao ; Zhou Rui</i>	
OPTIMIZATION METHOD OF ANTENNA SYSTEM RADIATION CAPABILITY	342
<i>Sun Ruiqi ; Liu Tianbo ; Chen Shuyuan ; Gao Lu ; Zheng Pei ; Wang Mingliang ; Wu Runhui</i>	
DESIGN OF A W-BAND DUAL-POLARIZED MONOPULSE CASSEGRAIN ANTENNA FEED BY FIVE-UNIT HORNS	345
<i>Xixi Feng ; Jiang Jia ; Junhao Gong ; Hao Luo ; Houjun Sun</i>	
A NOVEL LEAKY-WAVE ANTENNA BASED ON 1-BIT CODING METAMATERIAL	348
<i>Xiao Qing Chen ; Xiang Wan ; Tie Jun Cui</i>	
DESIGN OF CROSS POLARIZATION CONVERSION METASURFACE USING DUMBBELL-LIKE UNIT CELL	351
<i>Mustafa K. Taher Al-Nuaimi ; Wei Hong ; Abdelhady Mahmoud</i>	
A LOW PROFILE CIRCULARLY POLARIZED ANTENNA FED BY SIW TE₂₀ MODE	354
<i>Lubing Sun ; Yingsong Zhang ; Zuping Qian ; Jiadong Lin</i>	
INKJET-PRINTED ENCODABLE CHIPLESS RFID SENSOR BASED ON MICROF UIDICS	357
<i>Qi Liu</i>	
RESEARCH ON THE SINGLE RADIATED-MODE LEAKY COAXIAL CABLE WITH INCLINED SLOTS	359
<i>Cong Zeng ; Hongmin Lu</i>	
A DESIGN OF NARROW BEAM PRINTED PLANAR LOG-PERIODIC DIPOLE ANTENNA	362
<i>Xiao-feng Li</i>	
AN OVAL-SHAPED BROADBAND ±45° DUAL-POLARIZED BASE STATION ANTENNA FOR 2G/3G/LTE APPLICATIONS	364
<i>Xing-Wei Xiao ; Yong-Dan Kong ; Qing-Xin Chu</i>	
A WIDEBAND HIGH-GAIN QUASI-YAGI ANTENNA FOR MILLIMETER-WAVE APPLICATIONS	367
<i>Yang Cheng ; Yong Li</i>	
MINIATURIZED DESIGN OF CPW-FED SLOT ANTENNAS USING SLITS	370
<i>Ziyang Li ; Leilei Liu ; Pinyan Li ; Jian Wang</i>	
DESIGN OF A DUAL-BAND DUAL-SENSE CIRCULARLY POLARIZED ANNULAR-RING SLOT ANTENNA	373
<i>Jianxing Li ; Kai Da Xu ; Lumei Li ; Juan Chen ; Anxue Zhang</i>	
A LOW-PROFILE DUAL-POLARIZED KA-BAND ANTENNA FOR WIDE ANGLE SCANNING PHASED ARRAYS	376
<i>Pei Su ; Dan Sun ; Zhaocheng Zhang</i>	
A BROADBAND DUAL CIRCULARLY POLARIZED U-SLOT PATCH ANTENNA AND ITS ARRAY	379
<i>Shuaike Huo ; Chuanfang Zhang ; Keyu Yi ; Haipeng Liu ; Yannan Zhang</i>	
A NOVEL DESIGN OF LEAKY WAVE ANTENNA BASED ON COMPOSITE RIGHT/LEFT-HANDED STRUCTURE	382
<i>Pinyan Li ; Leilei Liu ; Ziyang Li ; Jianing Cai</i>	
A FLEXIBLE MINIATURIZED SQUARE-RING UHF RFID TAG ANTENNA WITH CIRCULAR POLARIZATION	385
<i>Jiadong Hu ; Wen Su ; Bian Wu</i>	
SCANNED SLOT ARRAY FED BY INCLINED SLOTS IN RIDGE WAVEGUIDE	388
<i>Shi Bingyun ; Ke Tenglong ; Luo Qi</i>	
LOW-PROFILE DUAL-BAND FABRY-PEROT RESONATOR ANTENNA	391
<i>Kuigen Cao ; Feng Xu ; Ling Yang</i>	
DESIGN OF CORRUGATED RING LOADED MUTIMODE HORN WITH AXISYMMETRIC PATTERN	394
<i>Xiangdong Wang ; Yiming Tang ; Bo Li ; Kai Li ; Hongda Xu</i>	
CONCEPTUAL DESIGN OF A DUAL-BAND CIRCULARLY POLARIZED SQUARE LOOP ANTENNA UNDER EVEN-MODE RESONANCE	397
<i>Dong-Dong Wang ; Cheng-Ying Yuan ; Wen-Jun Lu ; Hong-Bo Zhu</i>	
FILTERING DIPOLE ANTENNA WITH A CONTINUOUS IMPEDANCE BANDWIDTH AND A FREQUENCY-SPATIAL NOTCH-BAND IN RADIATION GAIN	400
<i>Sheng-Guang Wang ; Wen-Jun Lu ; Qing Li ; Jia-Chen Peng ; Hong-Bo Zhu</i>	
DESIGN OF A K-BAND FEED NETWORK WITH DUAL CIRCULAR POLARIZATION	403
<i>Jun Shi ; Xiaoxing Yin ; Weiye Zhong</i>	

A NOVEL BROADBAND CIRCULAR-POLARIZED MAGNETO-ELECTRIC DIPOLE ANTENNA BASED ON FSS	406
<i>Qingyun Zeng ; Wu Ren ; Zhenghui Xue ; Weiming Li</i>	
DISSIMILAR METASURFACE SUPERSTRATE HIGH DIRECTIVITY ANTENNA	409
<i>Rui Xi ; Long Li ; Tianliang Zhang ; Peng Wang</i>	
HIGH-EFFICIENCY BROADBAND METASURFACE WITH SILICON NANOANTENNA IN VISIBLE SPECTRUM	411
<i>Zhou Qizhang ; Cheng Lin ; Cao Pengfei ; Niu Tiaoming ; Zhang Hailong</i>	
A NOVEL MAGIC-T BASED ON HYBRID INTEGRATION TECHNOLOGY OF PLANAR CIRCUITS AND NRD-GUIDE	414
<i>Ling Yang ; Feng Xu ; Senshen Deng</i>	
A BALANCED-TO-BALANCED FILTERING GYSEL POWER DIVIDER WITH UNEQUAL POWER DIVISION	417
<i>Bo-Yuan Wang ; Xiang-Yu Wang ; Lin-Sheng Wu ; Jun-Fa Mao</i>	
MULTI-BEAM REFLECTOR ANTENNA ARCHITECTURE FOR BEAM-HOPPING AND SIZE REDUCTION SYSTEM	420
<i>Mingtao Zhang ; Chunbang Wu ; Yongchang Jiao ; Shenghua Zhai ; Ying Zhao</i>	
DESIGN OF COMPACT SIX-CHANNEL DIPLEXER USING CROSSED RESONATORS	423
<i>Qiang Shao ; Fu-Chang Chen ; Qing-Xin Chu</i>	
A DUAL-BAND POLARIZATION-INDEPENDENT AND WIDE-ANGLE METASURFACE FOR ELECTROMAGNETIC POWER HARVESTING	426
<i>Xuanming Zhang ; Long Li</i>	
DIGITAL PREDISTORTION FOR A DUAL-BAND ENVELOPE-TRACKING POWER AMPLIFIER WITH REDUCED BANDWIDTH REQUIREMENT FOR RF AND ENVELOPE PATHS	429
<i>Qianyun Lu ; Fan Meng ; Rui Zhang ; Jixin Chen ; Chao Yu</i>	
A C-BAND LOW PHASE-NOISE OSCILLATOR USING COMPLEMENTARY SPLIT-RING RESONATORS	432
<i>Heng Du ; Feihong Tang ; Hui Zhang ; Xutao Yu ; Peng Chen</i>	
DESIGN OF COMPACT RADIO FREQUENCY BROADBAND SIGNAL SOURCE	435
<i>Senyin Ling ; Hui Zhang ; Peng Chen ; Xutao Yu</i>	
A DECOMPOSED VECTOR ROTATION-BASED SIDEBAND DISTORTION SUPPRESSION MODEL FOR WIDEBAND MMWAVE TRANSMITTER LEAKAGE COMPENSATION	438
<i>Na Yang ; Yan Guo ; Chao Yu</i>	
COUPLING REDUCTION BETWEEN CIRCULARLY POLARIZED PATCH ANTENNAS WITH SPIRAL RESONATOR STRUCTURE	441
<i>Z. C. Xiao ; J. X. Li ; J. S. Zhang ; A. X. Zhang</i>	
DESIGN OF CIRCULARLY POLARIZED ANNULAR RING SLOT ANTENNA LOADED WITH REACTIVE COMPONENTS	444
<i>H. M. Huo ; J. X. Li ; J. Chen ; H. Y. Shi ; A. X. Zhang</i>	
COMPACT AND LOW-PROFILE EIGHT-ELEMENT LOOP ANTENNA ARRAY FOR THE 3.6-GHZ MIMO OPERATION IN THE FUTURE SMARTPHONE APPLICATIONS	447
<i>Hongwei Wang ; Guangli Yang</i>	
MULTI-BAND LTE ANTENNA FOR WEARABLE DEVICES	450
<i>Huafeng Shen ; Yixin Li ; Huanqing Zou ; Hongwei Wang ; Guangli Yang</i>	
DUAL-FEED MIMO ANTENNAS WITH ONE SHARED RADIATOR FOR FUTURE 5G MIMO SYSTEMS	453
<i>Le Liu ; Luyu Zhao ; Yuanming Cai ; Yingzeng Yin</i>	
CAVITY-BAKED SLOT ANTENNA FOR 5G COMMUNICATIONS	456
<i>Bin Yu ; Xitong Wu ; Kang Yang ; Zhanyi Qian ; Guangli Yang</i>	
APPLICATION OF 3-D METAL PRINTING TO MICROWAVE COMPONENTS AND ANTENNAS	459
<i>Guan-Long Huang ; Tao Yuan</i>	
DESIGN OF LOW PROFILE RFID TAG ANTENNA WITH 5.8GHZ USED IN ETC UNDER THE METALLIC ENVIRONMENT	462
<i>Jie Zhang ; Chao Guo ; Zijian Xing ; Wenle Yuan ; Wei Wang</i>	
SMALL-SIZE WLAN/5G MIMO ANTENNA FOR LAPTOP COMPUTER APPLICATIONS	465
<i>Wen-Shan Chen ; Jia-Hong Shu ; Chow-Yen-Desmond Sim</i>	
MULTIBAND ANTENNAS FOR GSM/GPS/LTE/WLAN SMART WATCH APPLICATIONS	468
<i>Wen-Shan Chen ; Guan-Quan Lin ; Guang-Ren Zhang ; Chow-Yen-Desmond Sim</i>	
A LONG CHAIN-LIKE READER ANTENNA FOR UHF RFID APPLICATION	471
<i>Haotian Li ; Zijian Xing</i>	
ANTENNA TUNING WITHOUT PHYSICAL MATCHING ELEMENTS	473
<i>J.-M. Hannula ; V. Viikari ; T. Saarinen ; A. Lehtovuori ; J. Holopainen</i>	
ULTRA THIN MICROSTRIP PHASE SHIFTER BASED ON CARBON NANOTUBE MEMBRANES	476
<i>Yunfan Wang ; Whenhua. Chen</i>	
DESIGN OF GRAPHENE TERAHERTZ REFLECTARRAY BASED ON BORON NITRIDE SUBSTRATE	479
<i>Yue Yin ; Yuan Yao ; Xiaoming Liu ; Limei Qi ; Zhijiao Chen ; Junsheng Yu ; Xiaodong Chen</i>	
A COMPACT MULTIBAND ANTENNA BASED ON METAMATERIAL FOR WLAN/WIMAX/WAVE APPLICATIONS	482
<i>Xu Pan ; Minquan Li ; Shandong Wang ; Yongguang Zhou ; Chunchun Shen ; Xuanxuan Li</i>	
METAMATERIAL-BASED FEED ANTENNA WITH DUAL-POLARIZED ELLIPTICAL RADIATION BEAM	485
<i>Lei Liu ; Yingran He ; Wenjing Zhang</i>	

EFFECTS OF FINITE GROUND PLANE SIZE ON RADIATION CHARACTERISTICS FOR A TILTED-BEAM ANTENNA SYSTEM	488
<i>Hisamatsu Nakano ; Yuhei Kameta ; Junji Yamauchi</i>	
A NOVEL WIDE-ANGLE SCANNING PATTERN RECONFIGURABLE ANTENNA	491
<i>Gaigai Zhang ; Tongxin Wei ; Haixiong Li ; Jun Ding ; Chenjiang Guo</i>	
140GHZ LOW-PROFILE AND HIGH-GAIN SLOT ARRAY ANTENNAS	494
<i>Zihang Qi ; Yuhan Huang ; Xiuping Li</i>	
THROUGHPUT BASED CHARACTERIZATIONS OF HANDSET MIMO ANTENNAS	497
<i>Jiao Sun ; Xiaoming Chen ; Anxue Zhang ; Yansheng Jiang</i>	
COUPLING THEORY FOR ANTENNAS BASED ON CHARACTERISTIC MODES	500
<i>Jiang-Feng Lin ; Qing-Xin Chu</i>	
A NEW SERIES- AND PARALLEL-FEED-NETWORK	503
<i>Jin Ling</i>	
DUAL REFLECTOR ZOOM ANTENNA BASED ON OPTICAL IMAGING THEORY FOR SATELLITES IN ELLIPTICAL ORBITS	506
<i>Fei Teng ; Zhengjun Li</i>	
DESIGN AND EXPERIMENT OF VARACTOR TUNED DIGITAL RECONFIGURABLE REFLECTIVE METASURFACE UNIT	509
<i>Jiaqi Han ; Weimin Xue ; Na Kou ; Long Li</i>	
LOW-PROFILE INDUCTANCE-LOADED SQUARE LOOP ANTENNA WITH STEERABLE BEAM	512
<i>Chen Lu ; Guo Qingxin ; Wang Ling ; Li Zengrui</i>	
WIDEBAND QUASI-NON-DIFFRACTION BEAM WITH LARGE DEPTH-OF-FIELD AND CONTROLLABLE PROPAGATING ANGLE	515
<i>Y. J. Cheng ; Y. C. Zhong</i>	
COMPACT DECOUPLING STRUCTURE FOR IMPROVING ISOLATION OF MIMO ANTENNAS	517
<i>Jian-Hui Xun ; Ling-Feng Shi ; Gong-Xu Liu ; Sen Chen</i>	
P BAND DUAL CIRCULAR POLARIZATION MEMBRANE ANTENNA ARRAY	520
<i>Zhang Yi Jiang</i>	
A LOW MUTUAL COUPLING MIMO ANTENNA USING 3-D ELECTROMAGNETIC ISOLATION WALL STRUCTURES	523
<i>Tianqi Jiao ; Tao Jiang ; Yingsong Li</i>	
DESIGN OF A FOLDED FRESNEL REFLECTOR (FFR) WITH JERUSALEM-CROSS-SHAPE ELEMENT	525
<i>Ly-wei Chen ; Yuehe Ge ; Xin Liu ; Chengxiu Lin</i>	
A THZ NEAR-FIELD SCANNING SYSTEM FOR ANTENNA MEASUREMENT	528
<i>C. K. Wong ; K. B. Ng ; H. Yi ; S.-W. Qu ; C. H. Chan</i>	
WAVE PROPAGATION MODELS FOR 5G RADIO COVERAGE AND CHANNEL ANALYSIS	531
<i>Reiner Hoppe ; Gerd Wölfle ; Peter Futter ; Jordi Soler</i>	
ANOMALOUS REFRACTION IN AN ALL-DIELECTRIC GRADIENT METASURFACE	534
<i>Linda Shao ; Weiren Zhu ; Xianling Liang ; Jumping Geng ; Ronghong Jin</i>	
NUMERICAL STUDY AND ANALYSIS OF ULTRA-WIDEBAND SIGNAL PROPAGATION THROUGH ROTATING GLASS DOOR	537
<i>Richa Bharadwaj ; Shiban K. Koul</i>	
MULTI-UCA BASED OAM-CARRYING VORTEX ELECTROMAGNETIC WAVE TRANSMISSION CHARACTERISTICS ANALYSIS	540
<i>Qiang Feng ; Long Li</i>	
INVESTIGATION OF DUAL-MODE SIW FILTERS WITH DIFFERENT PORT POSITIONS	543
<i>Lewei Cao ; Feng Xu ; Siyuan Yao ; Jian Yang</i>	
A DIFFERENTIAL WAVEGUIDE PHASE SHIFTER FOR Q-BAND CRYOGENIC RECEIVERS	546
<i>Weiye Zhong ; Xiaoxing Yin ; Jun Shi ; Cong Liu</i>	
DESIGN OF A NEW TYPE S-BAND COAXIAL DIPLEXER WITH REDUCED FOOTPRINT	549
<i>Wang Qi ; Wanzhao Cui</i>	
3D FREQUENCY SELECTIVE RASORBER WITH WIDE LOWER ABSORPTION BAND (INVITED)	552
<i>Guo Qing Luo ; Wei Liang Yu ; Yu Feng Yu</i>	
A NOVEL MESH GENERATION METHOD FOR FDTD WITHOUT RAY-TRACING	554
<i>Zhenyu Yu ; Wei Zhao ; Le Xu ; Xiaowei Shi</i>	
ACCELERATED COMPUTING FDTD ALGORITHM BASED ON LOSSY DISPERSION MEDIUM IN LOW FREQUENCY	557
<i>Xiangpeng Liu ; Kuisong Zheng ; Longfei Xu ; Yang Liu</i>	
NOVEL ELEMENT OF FREQUENCY SELECTIVE SURFACES BASED ON DIPOLE PATCH ELEMENT	560
<i>Cheng Chen ; Yuyun Hu ; Menglu Qiao ; Zhongwei Yang</i>	
DISCONTINUOUS GALERKIN TIME-DOMAIN METHOD BASED ON A NEW MARCHING-ON-IN DEGREE SCHEME	563
<i>Peng Wang ; Cheng-Yi Tian ; Yan Shi ; Long Li</i>	
SCATTERING CHARACTERISTICS OF UNDERWATER TARGETS WITH DIFFERENT SHAPES IN LOW FREQUENCY	566
<i>Longfei Xu ; Kuisong Zheng ; Xiangpeng Liu ; Yajing Li</i>	
HELMHOLTZ WAVE EQUATION BASED DISCONTINUOUS GALERKIN TIME DOMAIN METHOD FOR 3D ELECTROMAGNETIC ANALYSIS	569
<i>Cheng-Yi Tian ; Peng Wang ; Yan Shi ; Long Li</i>	

AN OPTIMAL POWER-TO-AMPLITUDE TRANSFORMATION STRATEGY OF MULTI-CARRIER FOR FDTD SIMULATION OF WAVEGUIDE DEVICES	572
<i>Xi Chao Bo ; Jian Feng Zhang ; Tie Jun Cui</i>	
A CIRCULAR-SHAPED PERFECTLY MATCHED LAYER STRATEGY FOR RECTANGULAR FDTD GRIDS	575
<i>Lu Wang ; Hong-xing Zheng ; Mengjun Wang ; Er-ping Li</i>	
A DECOUPLING METHOD IN CHARACTERISTIC MODES TRACKING	578
<i>Pengyu Chen ; Mang He ; Chuanfang Zhang</i>	
PROBE-FED BROADBAND LOW-PROFILE METASURFACE ANTENNAS USING CHARACTERISTIC MODE ANALYSIS	581
<i>Feng Han Lin ; Zhi Ning Chen</i>	
AUTOMATIC FEEDING ARRANGEMENT BASED ON THEORY OF CHARACTERISTIC MODE	584
<i>H. Li ; S. Sun ; B. Wang</i>	
REVISIT OF SIGNAL TRACES CROSSING SPLIT GROUND PLANE USING CHARACTERISTIC MODE ANALYSIS	586
<i>Zhongkui Wen ; Qi Wu</i>	
CHARACTERISTIC MODE ANALYSIS OF COMPOSITE METALLIC-DIELECTRIC BODIES	589
<i>Liwen Guo ; Yikai Chen ; Shiwen Yang</i>	
RESEARCH ON THE TECHNICAL OF MICROWAVE DUAL-PASSBANDS FILTERS	591
<i>Zhong Liang-yu</i>	
COMPACT DUAL-BAND BANDPASS FILTER BASED ON ZERO-ORDER RESONATOR WITH LARGE CENTER FREQUENCY RATIO	594
<i>Guangxu Shen ; Wenquan Che</i>	
CONTINUOUS AND RECONFIGURABLE DOHERTY POWER AMPLIFIER USING TUNABLE COMB STRUCTURE	597
<i>Xiaoxiao Kong ; Chang Jiang You ; Yuanwang Yang ; Xueyong Zhu ; Xuekun Du</i>	
RECENT DEVELOPMENTS OF TUNABLE MICROWAVE ABSORBERS USING GRAPHENE	600
<i>Da Yi ; Xing-Chang Wei</i>	
MODEL PRE-PROCESSING TECHNIQUE FOR ELECTROMAGNETIC SUSCEPTIBILITY ASSESS ON LAND VEHICLE	603
<i>Xiaofan Zhao ; Chuming Li</i>	
MILLIMETER-WAVE PROPAGATION MEASUREMENT AND SIMULATION IN A INDOOR OFFICE ENVIRONMENT AT 28 GHZ	606
<i>Shuangde Li ; Yuanjian Liu ; Leke Lin ; Mengxue Wang ; Zhong Sheng ; Dingming Sun</i>	
SPECTRUM DATA FEATURE ANALYSIS BASED ON SUPPORT VECTOR MACHINE METHOD	609
<i>Jiayi Wu ; Shuo Cui ; Donglin Su</i>	
ACCURATE SOLUTION OF VOLUME INTEGRAL EQUATIONS FOR DIELECTRIC BODY OF REVOLUTION	612
<i>Shu Na Jiang ; Mei Song Tong</i>	
BROADBAND ANALYSIS OF MICROWAVE DEVICES USING ASYMPTOTIC WAVEFORM EVALUATION AND NESTED MATRIX DECOMPOSITION	615
<i>Ting Wan ; Mengzhe Li ; Benliu Tang</i>	
RSSI-BASED INDOOR LOCATION WITH CIRCULARLY POLARIZED ANTENNAS AND LUDM ALGORITHM FOR WIRELESS SENSOR NETWORK	618
<i>Cong Wang ; Ruixuan Huang ; Minfeng Gu ; GaoBiao Xiao</i>	
A SIMPLE DESIGN METHOD FOR DUAL-BAND FILTERING ANTENNA ARRAY USING A TRANSMISSION LINE	621
<i>Yao Zhang ; Xiu Yin Zhang ; Yong-Mei Pan ; Quan Xue</i>	
A FEASIBILITY STUDY OF MICROWAVE RESPIRATION MONITORING	624
<i>Haolin Zhang ; Maokun Li ; Fan Yang ; Shenheng Xu</i>	
A MODEL-BASED INVERSION METHOD FOR RECONSTRUCTION OF 3D ANISOTROPIC PERMITTIVITIES	627
<i>Lin E. Sun ; Shi Cong Wang ; Mei Song Tong</i>	
INVESTIGATION OF POWER DISTRIBUTION PLANES WITH MULTI-SLOTS USING PLANE-PAIR PEEC METHOD	630
<i>Yan Li ; Wen-Yuan Cao ; Pan-Pan Zuo ; Yan-bo Xu ; Xiao-li Yang ; Cheng Ping ; Yong-Sheng Li ; Zhang Le ; Er-Ping Li</i>	
GROUND-LEVEL OBSERVATION OF TERRESTRIAL GAMMA-RAY BURSTS INITIATED BY LIGHTNING	634
<i>Xiao-Qiang Li ; Ru-Bin Jiang ; Yi Zheng ; Hong-Zhao Zhou ; Bin Xing ; Ying-Nan Li ; Wei Liu</i>	
A HIGH SENSITIVITY PARTIAL DISCHARGE CURRENT MEASUREMENT METHOD FOR THE HIGH VOLTAGE IGBT	637
<i>Pengyu Fu ; Rui Jin ; Zhibin Zhao ; Teng Wen ; Haoyu Wang ; Li Li</i>	
NOVEL METHOD TO EXTRACT THE STRAY INDUCTANCE FROM IGBT SWITCHING CURVES	640
<i>Xinling Tang ; Yan Pan ; Jinyuan Li ; Peng Zhang ; Rui Jin ; Zhibin Zhao ; Xiang Cui</i>	
CHARACTERISTIC MODES OF SEVERAL COMPONENTS IN DIGITAL SYSTEMS: COMPUTATION AND OBSERVATIONS	643
<i>Qi Wu</i>	
EVALUATION OF COMMUNICATION ERROR RATE INDUCED BY COMMON-MODE INTERFERENCE OF A MOTOR DRIVE SYSTEM	646
<i>Henglin Chen ; Chao Sun ; Kaikai Chen ; Xiaofan Zhao</i>	

A DI/DT AND DV/DT FEEDBACK-BASED DIGITAL GATE DRIVER FOR SMART SWITCHING OF IGBT MODULES	650
<i>Yang Wen ; Yuan Yang</i>	
STUDY OF HPM NONLINEAR EFFECT ON CIRCUIT SYSTEM CONSISTING OF PIN LIMITER BY USING HYBRID METHOD	653
<i>Haiyan Xie ; Yong Li ; Chun Xuan ; Jianguo Wang</i>	
DESIGN OF SIW PARALLEL COUPLING COUPLER AT Q-BAND	656
<i>Xuesong Shi ; Xiaowei Zhu</i>	
DESIGN AND OPTIMIZATION OF CONFORMAL ANTENNA SYSTEM	659
<i>Chen Shuyuan ; Gao Lu ; Sun Ruiqi ; Liu Jiaqi ; Bai Jingliang ; Jiang Zhiye ; Qin Peng ; Li Hu ; Zheng Pei ; Wang Minliang ; Wu Runhui</i>	
DESIGN OF GPS/WLAN ANTENNA FOR FULL METAL COVER TABLET PC	662
<i>Liyang Nie ; Xianqi Lin ; Jin Zhang ; Yuan Jiang ; Hui Deng</i>	
MICROWAVE ABLATION ANTENNA WITH ABLATION AREA BEING A FLAT SECTION	665
<i>Dongyi Liu ; Xianqi Lin ; Wangmao Liu ; Xiaocui Jia</i>	
DESIGN OF TRI-BAND ANTENNA WITH RECTANGULAR RING FOR WLAN AND WIMAX APPLICATION	668
<i>Kaiyao Yu ; Xiangjun Liu</i>	
COUPLER DESIGN METHOD BASED ON STRIPLINE FREQUENCY SCANNING ANTENNA	671
<i>Kai Guo ; Yunqi Fu</i>	
PLANAR CIRCULARLY POLARIZED ANTENNA BACKED BY TRIANGLE INTEGRATED WAVEGUIDE CAVITY	674
<i>Jie Yan ; Feng Xu ; SenShen Deng</i>	
HIGH PERFORMANCE LINEARLY TAPERED SLOT ANTENNA(LTSA) USING PARASITIC PATCH	677
<i>Chuang Zhang ; Yangsheng Hu ; Xiuhua Jin ; Xiaodong Huang</i>	
HIGH GAIN PRINTED QUASI LOG-PERIODIC DIPOLE ANTENNA WITH EXPONENTIAL PROFILE	680
<i>Yangsheng Hu ; Chuang Zhang ; Xiaodong Huang ; Xiuhua Jin</i>	
BEAM SYNTHESIS AND ANGLE MEASUREMENT BASED ON APERTURE CODING METASURFACE	683
<i>Qinhao Wu ; Yongqiang Cheng ; Xiang Li ; Hongqiang Wang ; Yuliang Qin</i>	
A MULTI-BEAM ANTENNA WITH 360 BEAM SCANNING ABILITY	686
<i>Cuicui Wu ; Min Feng ; Puxiang Tang</i>	
GENERATION OF DUAL-MODES OAM BEAMS BASED ON SIW CIRCULAR SLOT ANTENNA	689
<i>Bowei Ke ; Lei Li ; Zengqiang Wu ; Junkai Bai</i>	
DESIGN OF CONFORMAL PHASED ARRAY WITH LENS	692
<i>Juxing Yang ; Juan Lei ; Guoqing Chen ; Guang Fu</i>	
A 2.45 GHZ DIELECTRIC RESONATOR RECTENNA FOR WIRELESS POWER TRANSMISSION	695
<i>B.H. Zhang ; J.W. Zhang ; Z.P. Wu ; C.G. Liu ; B. Zhang</i>	
DESIGN OF A SMOOTH-WALLED HORN FOR SATELLITE COMMUNICATION IN C-BAND	698
<i>Liang Ruixiang ; Gong Qi ; Zhang Zhenhua ; Song Wenchao ; Wang Hu</i>	
DESIGN OF A MILLIMETER-WAVE CYLINDRICAL LUNEBERG LENS ANTENNA WITH MULTIPLE FAN-BEAMS	701
<i>Haonan Ren ; Shiwen Yang ; Shiwei Qu</i>	
A HIGH-GAIN CIRCULAR POLARIZED MICROSTRIP SLOT COUPLING ANTENNA FOR SATELLITE COMMUNICATION	704
<i>Mingwei Li ; Baoyue Xue ; Li Li ; Yang Xu ; Yongxin Guo</i>	
A LOW PROFILE PLANAR HORN ANTENNA FOR THZ APPLICATIONS	707
<i>Mei Jiang ; Xiaoqing Tian ; Yong Huang ; Lili Zhu</i>	
A DESIGN OF HIGH PERFORMANCE SPLASH-PLATE FEED FOR PARABOLIC REFLECTOR ANTENNA	710
<i>Puxiang Tang</i>	
FRACTAL AND CONFORMAL UWB ANTENNA FOR WIRELESS COMMUNICATION APPLICATIONS	713
<i>Zhenya Li ; Xiaosong Zhu ; Jianhua Zhang</i>	
A WIDEBAND SURFACE WAVE ANTENNA UTILIZING A NON-UNIFORM TAPER-SIZED PERIODICALLY LOADED GROUND PLANE	716
<i>Guirong Feng ; Lei Chen ; Xiaowei Shi ; Hao Yue ; Yaozhou Yang</i>	
A HIGH-GAIN BROADBAND STACKED PATCH ANTENNA WITH FINITE GROUND	719
<i>Jian Wang ; Jin Shi ; Qinghua Cao</i>	
DESIGN OF A BROADBAND LOG-PERIODIC DIELECTRIC RESONATOR ARRAY ANTENNA	722
<i>Ling-Lu Chen ; Lei Chang</i>	
ULTRA-WIDEBAND MONOPOLE ANTENNA WITH LUMPED ELEMENTS	725
<i>Bo-lun Jia ; Yong-jiu Zhao ; Lei Xing</i>	
THE DESIGN OF THE ELLIPTIC MONOPOLE OMNIDIRECTIONAL ANTENNA	728
<i>Xinqiao Zhang ; Bei Huang</i>	
A CIRCULARLY-POLARIZED ANTENNA WITH BROADBAND BASED ON CRLH-TL FOR NAVIGATION APPLICATIONS	730
<i>Xin-shuai Luo ; Zi-bin Weng ; Lei Wang ; Lei Yang</i>	
A WIDEBAND METRIC WAVE RECONFIGURABLE PLASMA ANTENNA DESIGN	733
<i>Chao Wang ; Bin Yuan ; Wenxuan Shi ; Feiyue Zhang ; Lei Yao</i>	
A DUAL-POLARIZED FABRY-PEROT CAVITY ANTENNA WITH HIGH GAIN	736
<i>Meng-Yao Mi ; Sheng-Qiang Zhang ; Bao-Hua Sun</i>	

DESIGN OF KA-BAND 2x2 CIRCULAR POLARIZATION SLOT ANTENNA ARRAY FED BY RIDGE GAP WAVEGUIDE	739
<i>Tong Li ; Fangfang Fan</i>	
DESIGN OF A MICROSTRIP ANTENNA WITH FILTERING CHARACTERISTICS FOR WIRELESS COMMUNICATION SYSTEMS	742
<i>Wei-jun Wu ; Ben Ma ; Jun Wang ; Chun Wang</i>	
FRACTAL UWB PATCH ANTENNA WITH OMNIDIRECTIONAL PATTERN	745
<i>Bo Hu ; Feihong Tang ; Peng Chen ; Xutao Yu</i>	
A BROADBAND CPW-FED CIRCULARLY POLARIZED SLOT ANTENNA WITH F-SHAPED FEEDLINE	748
<i>Guiping Jin ; Guangde Zeng ; Chuhong Deng</i>	
DESIGN AND INVESTIGATION OF AN ULTRA-WIDEBAND ANTENNA WITH NOVEL FEEDING MECHANISM	751
<i>Yanfang Wang ; Fuguo Zhu ; Steven Gao</i>	
COMPACT CAVITY-BACKED PATCH ANTENNA WITH WIDEBAND BANDWIDTH USING PARASITIC PATCH	754
<i>Yanfang Wang ; Fuguo Zhu ; Steven Gao</i>	
DESIGN OF A BROADBAND CIRCULARLY-POLARIZED DIELECTRIC RESONATOR ANTENNA ARRAY IN C-BAND	757
<i>Wei Shi ; Xiaoqiang Li ; Hengrong Cui ; Guangli Yang</i>	
REALIZATION OF A LOW RADAR CROSS SECTION ANTENNA BASED ON BAND-NOTCHED ABSORBER	760
<i>Peng Mei ; Xianqi Lin ; Yaodong Zhao</i>	
A WIDEBAND PLANAR HYBRID COUPLER USING COUPLED-LINE POWER DIVIDER AND BROADBAND PHASE SHIFTER	763
<i>Rong-Cang Han ; Ru-Ying Sun ; Shao-Hua Shi</i>	
SPATIAL ENERGY-FOCUSING FREQUENCY DIVERSE ARRAY USING SINGLE SIDE-BAND TIME MODULATION SCHEME	766
<i>Hao Wang ; Siqi Gu ; Yuqian Yang ; Jianshin Cao</i>	
DIELECTRIC CHARACTERIZATION IN 3MM BAND BY OPEN RESONATOR	769
<i>Qiao Zou ; En Li ; Yunpeng Zhang ; Angran Dong</i>	
A NEW CONSTRUCTION METHOD OF SPATIAL-TEMPORAL CORRELATION IN SEA CLUTTER SIMULATION	771
<i>Zhili Wang ; Ze Yu ; Shusen Wang</i>	
A NOVEL SYSTEM FOR ACTIVE IMPEDANCE TEST OF PHASED ARRAY ANTENNA	774
<i>Qingong Chang ; Ziqi Jiang ; Dahai Hu ; Liuge Du</i>	
NOVEL METHOD FOR MEASURING THE AXIAL RATIO OF CIRCULARLY POLARIZED ANTENNAS BASED ON THE CROSS-POLARIZATION	777
<i>Bin Li ; Ye Deng ; Jinping Zhang ; Zhipeng Zhou</i>	
DESIGN AND VERIFICATION OF SYNCHRONIZATION ANTENNA FOR SPACE-BORNE INTERFEROMETRIC SAR SYSTEMS	780
<i>Fuguo Zhu ; Bo Ren ; Rui Li ; Jinping Zhang ; Steven Gao</i>	
INVESTIGATION AND ANALYSIS OF FOCUSING ABILITY AND INSTRUMENT STRUCTURES OF MICRO-CYLINDRICALLY FOCUSED LOGGING	783
<i>Peng Hao ; Xiangyang Sun</i>	
DESIGN AND RESEARCH OF HIGHLY SELECTIVE FREQUENCY SELECTIVE SURFACES	786
<i>Cuiwei Tang ; Xiaoming Liu ; Hai Wang ; Haiyang Yu ; Yuan Yao ; Limei Qi ; Zhijiao Chen ; Junsheng Yu ; Xiaodong Chen</i>	
ULTRA-BROADBAND METAMATERIAL ABSORBER WITH RESISTANCES LOADED	789
<i>Xiaohui Qiu ; Yong-chang Jiao ; Li Zhang ; Yulin Chang</i>	
DESIGN OF FSS ABSORBER WITH HONEYCOMB SUBSTRATE BASED ON COMBINATION OF EQUIVALENT CIRCUIT MODEL AND EFFECTIVE ELECTROMAGNETIC PARAMETERS	791
<i>Yu-chen Zhao ; Yan-ning Yuan ; Yu-rong Pu ; Jiang-fan Liu ; Hong-Juan Yang ; Xiao-li Xi</i>	
A DOUBLE-LAYER EMBEDDED ELECTROMAGNETIC BANDGAP STRUCTURE WITH TWO VIAS FOR SSN SUPPRESSION	794
<i>Xiaoyun Yang ; Shuhui Yang ; Ling Wang ; Dongdong Zeng ; Bin Li</i>	
FAST ANALYSIS OF DUAL-REFLECTORS QUASI-OPTICAL SYSTEM BASED ON POINT MATCHING METHOD AND GAUSSIAN BEAM TRACING	797
<i>Hai Wang ; Zejian Lu ; Xiaoming Liu ; Hongbin Ge ; Cuiwei Tang ; Ran Zhang ; Renjie Xu ; Junsheng Yu ; Xiaodong Chen</i>	
COHERENT INTEGRATION METHOD OF FREQUENCY AGILE RADAR FOR TARGET DETECTION	800
<i>Caiyong Lin ; Ruiqi Tian ; Qinglong Bao ; Zengping Chen</i>	
ANALYSIS OF INFLUENCE ON DYNAMIC RCS SIMULATION BY TARGET GESTURE	803
<i>Zhou Bo ; Dai Huanyao ; Li Jinliang ; Qiao Huidong ; Kong Depei</i>	
SCATTERING FROM A COATED OBJECT ABOVE A ROUGH SURFACE USING HYBRID FEM/MOM	806
<i>Rui-Wen Xu ; Li-Xin Guo ; Xiao-Di Song</i>	
A SYSTEM FOR SYNCHRONOUS TEST OF ANTENNA PATTERN AND RADAR CROSS SECTION	809
<i>Qingong Chang ; Zhen Yan ; Ziqi Jiang ; Dahai Hu ; Liuge Du</i>	
THE STUDY OF PHASE GRADIENT METASURFACE AND ITS 2-DIMENSIONAL EXTENSION	812
<i>Hezhu Wang ; Wu Ren ; Zhenghui Xue ; Weiming Li</i>	
AN IMPROVED SVD-CBFM FOR FAST SOLUTION OF MULTIPLE INCIDENT EXCITATIONS ELECTROMAGNETIC SCATTERING	815
<i>Jinyu Zhu ; Yufa Sun ; Yahui Ding</i>	

DESIGN OF WIDEBAND BANDPASS FILTER USING QUADRUPLE-MODE RECTANGULAR CAVITY RESONATOR	818
<i>Yu-Ming Wu ; Shi-Yan Zhou ; Jing-Yu Lin ; Lu Wang Zhou ; Sai-Wai Wong ; Lei Zhu ; Qing-Xin Chu</i>	
A W-BAND SIW FILTER BASED ON 90 NM GAAS MMIC TECHNOLOGY	821
<i>Ziwei Xu ; Di Zhang ; Guoqiang Zhao ; Houjun Sun</i>	
A WIDEBAND SIW-TO-WAVEGUIDE TRANSITION AT W-BAND	824
<i>Di Zhang ; Ziwei Xu ; Yu Xiao ; Houjun Sun</i>	
TERAHERTZ BROADBAND RIDGE GAP WAVEGUIDE TO MICROSTRIP LINE TRANSITION STRUCTURE	827
<i>Liu Yijing ; Hou Yanfei ; Deng Changjiang ; Yu Weihua ; Lv Xin</i>	
A MINIATURIZED 3-DB MICROSTRIP RAT-RACE COUPLER USING SHORTED TRANS-DIRECTIONAL COUPLED LINES	830
<i>Yuan Cao ; Zhongbao Wang ; Shaojun Fang ; Hongmei Liu</i>	
A RECONFIGURABLE POWER DIVIDER WITH LARGE POWER DIVIDING RATIOS	833
<i>Tianyu Zhang ; Wenquan Che ; Haidong Chen</i>	
A NOVEL KU-BAND LOW PHASE NOISE FREQUENCY HOPPING SOURCE	836
<i>Wang Yijie ; Chen Peng ; Liu Mingyang ; Zhang Hui ; Yu Xutao</i>	
STUDY ON THE IMPACT OF HIGH POWER AMPLIFIER ON PSEUDO RANDOM NOISE CODE RANGING	839
<i>Junhao Gong ; Lu Zhang ; Xixi Feng ; Yu Xiao ; Houjun Sun</i>	
A MINIATURE BANDPASS FILTER USING MULTILAYERED PCB TECHNOLOGY	842
<i>Heng Zha ; Fang-fang Kong ; Zhang-cheng Hao</i>	
MODULATION AND DEMODULATION CIRCUITS OF MIMO RADAR BASED ON QPSK	845
<i>Zhiwei Liu ; Dingye Liu ; Judong Zhang ; Jingping Liu</i>	
POWER DIVIDER BASED ON SUBSTRATE INTEGRATED NONRADIATIVE DIELECTRIC WAVEGUIDE	848
<i>Jinnuo Qian ; Feng Xu ; Jie Yan ; Kuigen Cao</i>	
AN EXPERIMENTAL KA-BAND TRANSMIT/RECEIVE UNIT INTEGRATED WITH SLOT ANTENNAS	851
<i>Lihua Zhan ; Hao Shi ; Zhipeng Zhou</i>	
A HARMONIC CONTROLLED DOHERTY POWER AMPLIFIER WITH ENHANCED EFFICIENCY AT BACK-OFF POWER	854
<i>Shuailei Zhu ; Xiaoen Chen ; Wa Kong ; Dawei Ding ; Jing Xia</i>	
LOW LOSS HALF MODE MODE-SELECTIVE-TRANSMISSION-LINE: A NEW COMPACT SINGLE LAYER GUIDE WAVE STRUCTURE FOR MILLIMETER WAVE APPLICATION	857
<i>Zengqiang Wu ; Lei Li ; Bowei Ke ; Dehao Zhao</i>	
MICROSTRIP PARALLEL-COUPLED LINE WIDEBAND BANDPASS FILTER USING E-SHAPE RESONATOR	860
<i>Dong-Sheng La ; Shou-Qing Jia ; Long Cheng</i>	
MULTI-BAND ANTENNA DESIGN FOR FULL METAL CASING MOBILE HANDSET	863
<i>Kuixi Yan ; Peng Yang ; Feng Yang ; Ximeng Wang ; Junxiao Wang</i>	
SYNTHESIS AND DESIGN OF FILTERING ANTENNA BASED ON J/K INVERTERS AND $\lambda/4$ RESONATORS	866
<i>Peijin Dong ; Sheng Sun ; Xi Yu</i>	
DESIGN OF HIGH-ISOLATION DIPLEXER BASED ON MICROSTRIP COUPLED LINES	869
<i>Xun Chen ; Xi Yu ; Sheng Sun</i>	
PERFORMANCE STUDY OF SEQUENTIALLY ROTATED FEEDING ANTENNA ARRAY FOR CIRCULAR POLARIZATION	870
<i>Yan Li ; Buning Tian</i>	
TUNABLE ULTRA WIDEBAND MICROWAVE ABSORBER BASED ON MULTILAYER GRAPHENE RESISTIVE LOOPS	871
<i>Jin Zhang ; Wei Bing Lu ; Hao Chen ; Zhen Guo Liu</i>	
A TUNABLE ATTENUATOR ON GRAPHENE-BASED SUBSTRATE INTEGRATED WAVEGUIDE	874
<i>An-Qi Zhang ; Wei-Bing Lu ; Zhen-Guo Liu ; Yang Yi ; Hao Chen ; Bao-Hu Huang</i>	
GRAPHENE-BASED BROADBAND REFLECTION-TYPE MODULATOR WITH TUNABLE AMPLITUDE	877
<i>Huiling Li ; Bian Wu ; Yutong Zhao ; Wei Zhang ; Lianxing He</i>	
STUDY OF A METALLIC ANTENNA BACKED BY GRAPHENE-BASED REFLECTOR	880
<i>Danli Tang ; Bin Zhang ; Chengguo Liu ; Jingwei Zhang ; Daping He ; Zhi Wu</i>	
FLEXIBLE GRAPHENE BASED FILMS FOR MICROSTRIP ARRAY ANTENNAS	883
<i>Rongguo Song ; Chunyu Liu ; Jingwei Zhang ; Chengguo Liu ; Daping He ; Zhi Wu</i>	
WIDEBAND CIRCULARLY POLARIZED ANTENNAS FOR SATELLITE COMMUNICATIONS	886
<i>Long Zhang ; Steven Gao ; Qi Luo</i>	
DESIGN OF BROADBAND END-FIRE ANTENNA ARRAY	889
<i>Zhang Haobin ; Wang Liang ; Han Wangwang</i>	
A NOVEL WIDEBAND AND HIGH-GAIN BOW-TIE SLOT ANTENNA WITH APERTURE COUPLED FEEDING STRUCTURE	893
<i>Hao Wang ; Zengxia Ding ; Shuang He ; Jianyin Cao ; Yuqian Yang</i>	
A DIRECTIONAL CONFORMAL ANTENNA ARRAY FOR FAILURE DETECTORS IN SMART GRID APPLICATIONS	896
<i>Fuwen Tan ; Duolong Wu ; Bei Huang ; Jianfeng Li</i>	
PLANAR SERIES-FED ANTENNA ARRAY FOR 77 GHZ AUTOMOTIVE RADAR	899
<i>Jianjie Yan ; Haiming Wang ; Jiexi Yin ; Chen Yu ; Wei Hong</i>	

OFFSET-FED METAL-ONLY REFLECTARRAY ANTENNA DESIGNS	902
<i>Raj Mittra ; Shaileshachandra Pandey ; Ravi Kumar Arya</i>	
COMPACT TWO-LAYER ROTMAN LENS-FED CIRCULARLY POLARIZED ANTENNA ARRAY	905
<i>Jianping Li ; Weiren Zhu ; Kun Wang ; Xudong Bai ; Guanshen Chenhu ; Liang Liu ; Yifeng Chen ; Xianling Liang ; Junping Geng ; Ronghong Jin</i>	
LINEAR TO CIRCULAR POLARIZATION CONVERTER WITH THIRD ORDER META-FREQUENCY SELECTIVE SURFACES	907
<i>Fuheng Zhang ; Guo-Min Yang ; Ya-Qiu Jin</i>	
META-MIRRORS WITH NEGATIVE REFLECTIONS	909
<i>Rui Yang</i>	
ON SEMI-CLASSICAL OPTICAL REPOSE OF METALLIC SILVER AND SILVER COATED SILICA NANOPARTICLES	912
<i>Atta ur Rahman ; Junping Geng ; Sami Rehman ; Ronghong Jin ; Xianling Liang ; Weiren Zhu</i>	
GROUPING PLANE SPIRAL ELECTROMAGNETIC WAVES FOR STRUCTURED RF BEAMS	914
<i>Xianmin Zhang ; Shilie Zheng</i>	
A 77GHZ DIELECTRIC RESONATOR ANTENNA ARRAY USING DIELECTRIC IMAGE INSULAR GUIDE	917
<i>Jiang Xing ; Li Quan ; Li Xiaofeng ; Liao Xin ; Wang Kun</i>	
DECOUPLED RANGE-ANGLE BEAMPATTERN SYNTHESIS OF FREQUENCY DIVERSE ARRAY USING GENETIC ALGORITHM	920
<i>Can Cui ; Xiutiao Ye ; Wentao Li ; Xiaowei Shi</i>	
CONSTRAINT ANTENNA ARRAY BEAMFORMINGBASED ON MULTI-OBJECTIVE RADIAL BASIS FUNCTION NEURAL NETWORK	923
<i>Zhonghui Zhao ; Huiling Zhao ; Mingxuan Zheng</i>	
ANTENNA DESIGN FOR 5G COMMUNICATIONS	926
<i>P. W. Futter ; J. Soler</i>	
DESIGN OF WIDEBAND MIMO HANDSET ANTENNAS USING CHARACTERISTIC MODES	929
<i>Ke Li ; Zhen-Guo Ban ; Yan Shi ; Long Li</i>	
BAYESIAN COMPRESSIVE SENSING FOR TARGET DETECTION AND PARAMETER ESTIMATION USING MIMO RADAR	932
<i>Jun Liu ; Jianbo Wang ; Zisheng Gao ; Guang Hua</i>	
E-BAND HORN ANTENNA ARRAY WITH REDUCED SIDELOBES	935
<i>L. T. Qin ; G. M. Xu ; Y. L. Lu ; Q. C. You ; J. F. Huang</i>	
FAST INTEGRAL EQUATION METHODS FOR SOLVING SCATTERING FROM BODIES OF REVOLUTION (INVITED)	938
<i>Yu-Ke Li ; Jun Hu ; Zaiping Nie ; Qing Huo Liu</i>	
SHEET RESISTANCE EVALUATION OF CONDUCTIVE THIN FILMS USING MICROSTRIP ANTENNA	941
<i>Ming Ye ; Lu Wang ; Yongning He ; Mojgan Daneshmand</i>	
LORA PROPAGATION TESTING IN SOIL FOR WIRELESS UNDERGROUND SENSOR NETWORKS	944
<i>Xue-fen Wan ; Yi Yang ; Jian Cui ; Muhammad Sohail Sardar</i>	
FAR FIELD RECONSTRUCTION FOR REFLECTOR ANTENNA USING PLANAR FRESNEL FIELD SAMPLES	947
<i>Yang Bai ; Shun-You Qin</i>	
SECONDARY ELECTRON EMISSION YIELD MEASUREMENT OF DIELECTRIC MATERIALS FOR SATELLITE ANTENNA	949
<i>Tiancun Hu ; Isabel Montero ; Pablo Pérez-Villacastín ; Wanzhao Cui ; Meng Cao ; Qi Wang</i>	
A FOUR-BAND WIDE-ANGLE METAMATERIAL ABSORBER AT MICROWAVE FREQUENCY	952
<i>Shixian Xu ; Yuran Wang ; Qizhang Zhou ; Lin Cheng ; Pengfei Cao ; Jie Dou</i>	
STUDY ON COMPLEX PERMITTIVITY MEASUREMENTS AT SUPER-HIGH TEMPERATURES USING A NOVEL MULTI-FUNCTIONAL ELLIPSOIDAL CAVITY/MIRROR	955
<i>B. J. Wang ; S. L. Fan ; L. Wang ; W. B. Dou</i>	
A TUNABLE WATER-BASED METAMATERIAL MICROWAVE ABSORBER	958
<i>Zixiang Han ; Junming Zhao ; Yijun Feng</i>	
THREE-DIMENSIONAL BANDPASS FREQUENCY SELECTIVE SURFACE WITH QUASI-ELLIPTIC RESPONSES	961
<i>Zhengyong Yu ; Jianping Zhu ; Jinqun Ge ; Cheng Wang ; Cheng Huang ; Wanchun Tang</i>	
PLANAR SIX-PETALED ARTIFICIAL MAGNETIC CONDUCTOR WITH MINIATURIZED SIZE AND IMPROVED BANDWIDTH	964
<i>Yingbo Wu ; Jun Wang ; Xiaopan Xia ; Minguo Li</i>	
BAND REJECTION FILTER BASED ON A COMPOSITE SPOOF SURFACE PLASMON PERIODIC STRUCTURE	967
<i>Michael Chisala ; Jing Zhou ; Dong Yang ; Lin Hai</i>	
A UNIT OF RIGHT-ANGLED TRIANGLE MICROSTRIP ARTIFICIAL TRANSMISSION LINE	970
<i>Wen Huang ; Jia Li ; Honggang Hao ; Bin Wang ; Xi Guo</i>	
RADAR TARGET CHARACTERISTIC EXTRACTION AND REBUILDING OF MULTI-TARGET BASED ON SCATTERING CENTER	973
<i>Li Jianzhou ; Fan Chaoqun ; Liu Lu ; Wang Wenzhuo ; Wang Xiaoyang</i>	
GEOMETRIC PHASE CODED MICROWAVE METASURFACE FOR ULTRA-WIDEBAND RADAR CROSS SECTION REDUCTION	976
<i>Li Cui ; Ke Chen ; Yijun Feng ; Junming Zhao ; Tian Jiang ; Bo Zhu</i>	

A 140 GHZ COMMON-BASE CROSS-COUPLED VCO WITH FEEDBACK INDUCTOR IN INP HBT TECHNOLOGY	979
<i>Rui Lin ; Jun Liu ; Guodong Su ; Wenjie Jiang</i>	
SYNTHESIS AND IMPLEMENTATION OF SUPERLUMINAL CIRCUITS WITH ZERO GROUP DELAY	982
<i>Ranjan Das ; Qingfeng Zhang ; Abhishek Kandwal</i>	
BROADBAND AND HIGHLY EFFICIENT CLASS-J POWER AMPLIFIER WITH COMPACT OUTPUT MATCHING NETWORK	985
<i>Dan Xie ; Chang Jiang You ; Yuanwang Yang ; Xueyong Zhu ; Xuekun Du ; Ke Han</i>	
BANDPASS FILTERING COUPLER BASED ON DUAL-MODE DIELECTRIC RESONATORS	988
<i>Shao Yong Zheng ; Yong Xuan Zheng</i>	
A CASCADED SIX ORDER BANDPASS SIW FILTER USING ELECTRIC AND MAGNETIC COUPLINGS TECHNOLOGY	991
<i>Ming Dong ; Dongya Shen ; Chaojun Ma ; Xiupu Zhang</i>	
DESIGN OF A FIRST-ORDER MICROWAVE DIFFERENTIATOR USING MODIFIED LADDER NETWORK	994
<i>Shuping Zhang ; Qingfeng Zhang</i>	
AN ULTRA-WIDEBAND 3-DB COUPLER USING MULTILAYER SUBSTRATE INTEGRATED STRIPLINE	997
<i>Mei Xu ; Wen Su ; Bian Wu ; Nan Wang</i>	
IMPROVED DESIGN OF BROAD WALL WSA FOR AN APPLICATION OF ONE-DIMENSION ACTIVE PHASED ARRAY	1000
<i>Yuan Yuan ; Xu Zhi</i>	
AN ACCURATE MID-FIELD CALIBRATION TECHNIQUE FOR LARGE PHASED ARRAY ANTENNA	1003
<i>Ruoxin Li ; Jianbo Zhang ; Chengguo Li ; Yan Li ; Buning Tian ; Chunbang Wu</i>	
DESIGN OF A COOLING SYSTEM FOR HIGH DENSITY INTEGRATED PHASED ARRAY ANTENNA TEST	1006
<i>Jianbo Zhang ; Ruoxin Li ; Xiangyang Xu ; Chunbang Wu</i>	
EXPLORING OTA TESTING FOR MASSIVE MIMO BASE STATIONS IN SMALL REGION	1009
<i>Zhaolong Qiao ; Yongjun Xie ; Zhengpeng Wang ; Jungang Miao</i>	
BEST WIDE-BEAM COVERAGE DESIGN FOR PLANAR SMALL-SCALE ARRAY ANTENNA	1012
<i>Yan Li ; Lin Li ; Ruoxin Li ; Buning Tian ; Chunbang Wu</i>	
A DESIGN OF TUNABLE HIGH-IMPEDANCE SURFACE (HIS) BASED ON HYBRID METAL-GRAPHENE STRUCTURE	1013
<i>Wen-Sheng Zhao ; Da-Wei Wang ; Gaofeng Wang ; Wen-Yan Yin</i>	
ANALYSIS OF RADIATION FIELDS OF LITTLE BWS FOR BIOMEDICAL EXPERIMENT	1016
<i>Xiangqin Zhu ; Weiqing Chen ; Jianguo Wang ; Zaigao Chen</i>	
ANALYSIS OF LNA UNDER MULTI-PULSES IEMI	1019
<i>Yong Li ; Haiyan Xie ; Chun Xuan ; Jianguo Wang</i>	
PROBABILITY ANALYSIS OF HEMP COUPLING TO POWER LINE	1022
<i>Hailiang Qiao ; Haiyan Xie ; Maoyu Zhang</i>	
UNCERTAINTY OF VALIDATING SEMI-ANECHOIC CHAMBERS FOR RADIATED EMISSION MEASUREMENT	1025
<i>Donglin Meng ; Liu Xiao ; Hong Li ; Ban Hao</i>	
PETT OSCILLATION CHARACTERISTICS IN PRESS PACK IGBTs	1028
<i>Xinling Tang ; Yan Pan ; Peng Zhang ; Jinyuan Li ; Rui Jin ; Zhibin Zhao ; Xiang Cui</i>	
CONDUCTED EMI ANALYSIS OF DOUBLE-SIDE LCC COMPENSATED WPT SYSTEM	1031
<i>Tianlun Xiao ; Wenjie Chen ; Heyuan Qi ; Zifeng Zhao ; Yilin Sha</i>	
ELECTRICAL FIELD ANALYSIS OF PRESS-PACK IGBTs	1034
<i>Pengyu Fu ; Zhibin Zhao ; Xiang Cui ; Peng Zhang ; Ronggang Han</i>	
A COMPACT WIDEBAND±45° DUAL-POLARIZED ANTENNA FOR LTE BASE STATIONS APPLICATIONS	1037
<i>Yaohui Zhang ; Caixu Chen</i>	
HIGH-ISOLATION AND HIGH-GAIN MICROSTRIP ANTENNA BASED ON DOUBLE-LAYER RADIATION PATCHES	1040
<i>Xiaobo Liu ; Jingsi Zhang ; Anxue Zhang</i>	
A WIDEBAND MAGNETO-ELECTRIC DIPOLE ANTENNA FOR CIRCULARLY POLARIZED RADIATION	1043
<i>Rui Xu ; Kai Kang ; Yan Shi ; Long Li</i>	
A BROADBAND DUAL-POLARIZED MAGNETO-ELECTRIC DIPOLE ANTENNA FOR 2G/3G/LTE APPLICATIONS	1046
<i>Wensheng Yu ; Zhongxiang Zhang ; Aoyun Zhang ; Xianliang Wu</i>	
BROADBAND CIRCULARLY POLARIZED ANTENNA WITH CROSSED DIPOLES AND ITS ARRAY FOR SATELLITE COMMUNICATIONS	1049
<i>Baoming Li ; Yufeng Yu ; Yi Wang</i>	
A NOVEL COMPACT BROADBAND CIRCULARLY POLARIZED ANTENNA FOR GNSS	1052
<i>Aoyun Zhang ; Zhongxiang Zhang ; Wensheng Yu ; Xianliang Wu</i>	
NOVEL VIVALDI ANTENNA BASED ON BALANCED-UNBALANCED FEED	1055
<i>Xingdong Gao ; Yingzeng Yin</i>	
MODIFIED ULTRA WIDEBAND HYBRID MONOPOLE DIELECTRIC RESONATOR ANTENNA	1058
<i>Kui-Sheng Feng ; Na Li ; Si-Jia Li ; Xiang-Yu Cao ; Jun Gao ; Tong Li</i>	
A NOVEL METRIC WAVE ULTRA-WIDEBAND PLASMA ANTENNA BASED ON MONOPOLE WITH PARASITIC ELEMENTS	1061
<i>Feiyue Zhang ; Bin Yuan ; Chao Wang ; Wenxuan Shi ; Lei Yao</i>	

LOW-PROFILE DIPOLE ANTENNA WITH PARASITIC PATCHES	1064
<i>Son Xuat Ta ; Ngoc Dao Chien ; Kam Eucharist Kedze ; Ikmo Park</i>	
DESIGN OF DUAL-BAND MINIATURIZED SLOT LOADED MONOPOLE ANTENNA	1067
<i>Z. H. Zhang ; C. Wang ; F. S. Zhang</i>	
ULTRA-WIDEBAND TEXTILE ANTENNA INTEGRATED IN THREE DIMENSIONAL ORTHOGONAL WOVEN FABRICS	1070
<i>Cheng-Zhu Du ; Yong-Zhi Wang ; Fu-Hui Yang ; Shun-Shi Zhong</i>	
A SEMI-CIRCULAR SHAPED MONOPOLE ANTENNA FOR SWB APPLICATIONS	1072
<i>J. W. Zhang ; R. G. Song ; C. G. Liu</i>	
A MODIFIED FOUR-ARM, MODE-2, WIDE-BEAM ARCHIMEDEAN SPIRAL ANTENNA	1075
<i>Hao Wang ; Huirong Ji ; Junzhe Yu ; Jianyin Cao ; Yuqian Yang</i>	
A PRINTED BOWTIE DIPOLE BROADBAND DIRECTIONAL ANTENNA	1078
<i>Yong Cheng ; Bingqing Sheng</i>	
A MINIATURIZED VIVALDI ANTENNA WITH HIGH GAIN FOR ULTRA-WIDEBAND APPLICATIONS	1081
<i>Hao Wang ; Shuang He ; Zengxia Ding ; Jianyin Cao ; Yuqian Yang</i>	
A WIDEBAND DUAL-POLARIZED CONFORMAL PHASED ARRAY BASED ON TIGHTLY COUPLED DIPOLES	1084
<i>Qianshu Xiao ; Shiwen Yang ; Hongfei Bao ; Yikai Chen ; Shiwei Qu</i>	
A NOVEL UWB ANTENNA WITH DUAL NOTCHED BANDS FOR WIMAX AND WAVE APPLICATION	1087
<i>Shandong Wang ; Minquan Li ; Xu Pan ; Chunchun Shen ; Xuanxuan Li ; Yongguang Zhou</i>	
A NOVEL BROADBAND LOW-PROFILE BASE STATION ANTENNA WITH AMC REFLECTOR	1090
<i>Wei Shi ; Qing-Xin Chu</i>	
ULTRA-WIDEBAND NON-REFLECTING PLANAR SPIRAL SLOT ANTENNA USING POST-WALL STRUCTURE	1092
<i>Mei Yang ; Yufu Li ; Xiaoxing Yin ; Xin Wang</i>	
AN UWB MM-WAVE PHASED ARRAY ANTENNA FOR 5G HANDHELD DEVICES APPLICATIONS	1095
<i>Fei Wang ; Liang Zhang ; Xianliang Wu</i>	
SHAPED BEAM SYNTHESIS TECHNIQUE BY PHASE-ONLY CONTROLLING IN ARRAYS BASED ON MULTI-POPULATION GENETIC ALGORITHM	1098
<i>Kun Gao ; Xin Li ; Yao Zong ; Jun Zhang</i>	
A WIDEBAND WIDE-ANGLE SCANNING VIVALDI ANTENNA ARRAY WITH LOW PROFILE	1101
<i>Jiabo Liu ; Shaoqiu Xiao ; Yan Li ; Bingzhong Wang</i>	
A W-BAND POWER DIVIDER REALIZED BY METALLIC GAP WAVEGUIDE TECHNOLOGY WITH POLARIZATION CONVERSION	1104
<i>Jianyin Cao ; Hao Wang ; Yan Wang ; Shuanglong Quan ; Shanxiang Mou</i>	
ARRAY CALIBRATION WITH SENSOR GAIN AND PHASE ERRORS USING INVASIVE WEED OPTIMIZATION ALGORITHM	1107
<i>W. Peng ; Y. Gao ; Y. Qu ; C. Guo</i>	
PARAMETRIC STUDY ON PATCH ANTENNA BASED ON SILVER NANOWIRES	1110
<i>Ran Zhang ; Xiaoming Liu ; Huijuan Chen ; Hai Wang ; Haiyang Yu ; Junsheng Yu ; Xiaodong Chen</i>	
SIMULATIONS AND MEASUREMENT OF 2D METAMATERIAL APERTURE ANTENNA	1113
<i>Mengran Zhao ; Shitao Zhu ; Bangyu Wu ; Anxue Zhang</i>	
A NOVEL HIGH-GAIN CIRCULARLY POLARIZED PLANAR LENS ANTENNA BASED ON THE ELEMENT ROTATION METHOD	1116
<i>Zhi Li ; Jianxun Su ; Zengrui Li</i>	
STUDY ON THE UNUSUAL FEATURES OF OAM BEAMS AND VORTEX ELECTROMAGNETIC FIELDS	1119
<i>Kang Liu ; Yongqiang Cheng ; Yuliang Qin ; Xiang Li ; Yanwen Jiang</i>	
ANALYSIS OF TIME-VARYING MAGNETIC PLASMA BY FDTD METHOD	1122
<i>Yanghong Xi ; Zhixiang Huang ; Xianliang Wu ; Guoda Xie</i>	
SIX-STAGE SPLIT-STEP FDTD METHOD INCLUDING LUMPED RESISTORS AND ITS STABILITY ANALYSIS	1125
<i>Chu-Bin Zhang ; Yong-Dan Kong</i>	
OBSERVATION AND PREDICTION ON THE CHARACTERISTIC MODES' VARIATION WITH FREQUENCY	1128
<i>Shaode Huang ; Jin Pan</i>	
ANALYSIS OF DIURNAL VARIATION ON LONG-WAVE GROUND WAVE PROPAGATION DELAY	1131
<i>Yang Hongjuan ; Wang Lili ; Pu Yurong ; Xi Xiaoli</i>	
UNIFORMITY OF ROOT-MEAN-SQUARE DELAY SPREAD IN REVERBERATION CHAMBER WITH DIFFERENT LOADINGS	1134
<i>Lifeng Wang ; Xiaotao Guo ; Zhao He ; Yichi Zhang ; Zilong Zhang</i>	
SIMULATION OF 38 GHZ MILLIMETER-WAVE PROPAGATION CHARACTERISTICS IN INDOOR LOS AND NLOS ENVIRONMENT	1137
<i>Mengxue Wang ; Yuanjian Liu ; Shuangde Li ; Xiaojun Zhang</i>	
ADDITIVE PHASE NOISE SUPPRESSION OF DIRECT MODULATION ANALOG OPTICAL LINKS	1140
<i>Hui Gao ; Ye Deng ; Zhipeng Zhou ; Hui Yang ; Yongchuan Xiao</i>	
STUDY ON THE RMS AND PATH LOSS OF 60GHZ MILLIMETER-WAVE IN TYPICAL INDOOR ENVIRONMENT	1143
<i>Zhong Sheng ; Yuanjian Liu ; Zhipeng Chen ; Shuangde Li ; Xiaojun Zhang</i>	

SIMULATION AND ANALYSIS OF MILLIMETER-WAVE PROPAGATION CHARACTERISTICS IN THE OFFICE ENVIRONMENT	1146
<i>Xiang Zhu ; Yuanjian Liu ; Shuangde Li ; ZhiPeng Chen</i>	
A NOVEL UWB ANTENNA WITH QUINTUPLE BAND-NOTCHED CHARACTERISTICS	1149
<i>Li Zhenya ; Zhu Xiaosong ; Zhang Jianhua</i>	
DESIGN OF AN ULTRA-WIDEBAND COMPACT 90-DEGREE 3DB COUPLER FOR IMAGE-REJECTION UP-CONVERTER	1152
<i>Yan Chen ; Jianyi Zhou ; Zhiqiang Yu ; Youjin Yin ; Guangyao Peng</i>	
ULTRA-BROADBAND RECONFIGURABLE LINEAR-TO-CIRCULAR POLARIZATION CONVERTER BASED ON METASURFACE IN TERAHERTZ FREQUENCY	1155
<i>Lei Wang ; Yannan Jiang ; Jiao Wang ; Weiping Cao ; Xi Gao ; Xinhua Yu</i>	
A NEW METHOD ON SHADOW AND LAYOVER DETECTION OF INSAR	1158
<i>Xiang-yu Du ; Qi Yang ; Bin Cai ; Dian-nong Liang</i>	
A HIGH SPEED 3D RADAR IMAGING SYSTEM DESIGN BASED ON FMCW AND MIMO ARRAY	1161
<i>Zhen Yan ; Wei Liu ; Qinggong Chang ; Dahai Hu ; Yahai Wang</i>	
DESIGN OF THE HIGH PERFORMANCE RF TRANSMITTER FOR WIDEBAND SYSTEM	1164
<i>Daxu Zhang ; Jianyi Zhou ; Hualei Cai ; Bo Lin</i>	
IMPROVING BP EFFICIENCY BY THE MANNER OF OFFLINE PROJECTION	1167
<i>Jingkun Gao ; Bin Deng ; Yuliang Qin ; Hongqiang Wang ; Xiang Li</i>	
RAPID DESIGN OF SIW FILTER BANK BASED ON WAVEGUIDE DESIGN SOFTWARE	1170
<i>Zhen-Guo Hu ; Peng Chen ; Xu-Tao Yu</i>	
ELECTROMAGNETIC PARAMETERS MEASUREMENT OF MAGNETIC THIN FILM MATERIALS	1173
<i>Shu Zhou ; Hu Zheng ; En Li ; Chao Zhao</i>	
DUAL-POLARIZATION TUNABLE ELECTROMAGNETIC ABSORBER	1176
<i>Peng Mei ; Yaodong Zhao ; Kun Zheng ; Xianqi Lin</i>	
WIDEBAND RADAR SYSTEM DISTORTION COMPENSATION USING SPHERICAL SATELLITE ECHO	1179
<i>Pengjiang Hu ; Panhe Hu ; Shiyong Xu ; Zengping Chen</i>	
RESEARCH ON THE RCS REDUCTION OF AIRBORNE PHASED ARRAY BASED ON THE 2D DISTRIBUTION OF BRAGG LOBES	1182
<i>Yun Liu ; Xugang Wang ; Jing Shen</i>	
INVESTIGATION ON ELECTROMAGNETIC SCATTERING FROM AN AIRFOIL OBJECT ABOVE ROUGH SURFACE	1185
<i>J. Li ; Z. L. Ren ; L. X. Guo ; K. Li ; X. Meng</i>	
APPLYING PERFECTLY ABSORBING THIN SCREEN TO THE 3D PARABOLIC EQUATION METHOD	1188
<i>Xiaowei Guan ; Lixin Guo ; Yajiao Wang ; Qingliang Li</i>	
A BROADBAND RADIATOR AND ABSORBER BASED ON TIGHTLY COUPLED ARRAY	1191
<i>Fengkai Xu ; Shaoqiu Xiao ; Yan Li</i>	
BROADBAND AND WIDE-ANGLE RCS REDUCTION BASED ON AN OPTIMAL-ARRANGED METASURFACE	1194
<i>Tong Han ; Xiangyu Cao ; Jun Gao ; Yanlong Zhao</i>	
A NOVEL DESIGN OF VIVALDI ANTENNA FOR LOW RCS	1197
<i>Jun Fan ; Zaiping Nie</i>	
RCS REDUCTION OF STEPS BY USING PHASE CANCELLATION	1200
<i>Zhenlin Zou ; Zaiping Nie</i>	
THE DIFFUSION CONFORMAL METASURFACE FOR WIDE-BAND RCS REDUCTION OF CYLINDRICAL TARGET	1203
<i>Mingyang Wang ; Hui Zhang ; Guowen Lu ; Jianxun Su ; Zengrui Li</i>	
DUAL-BAND CHECKERBOARD PLASMA ELECTROMAGNETIC SURFACE FOR RADAR CROSS SECTION REDUCTION	1206
<i>Qiang Xu ; Zhifeng Li ; Jinjun Mo</i>	
A WIDEBAND TIGHTLY COUPLED PHASED ARRAY WITH REDUCED SCATTERING CHARACTERISTICS	1209
<i>Hongfei Bao ; Shiwen Yang ; Qianshu Xiao ; Yikai Chen ; Shiwei Qu</i>	
METASURFACE BASED ON SQUARE-RING FOR ULTRAWIDEBAND RCS REDUCTION	1212
<i>Yueyang Cui ; Jianxun Su ; Zengrui Li</i>	
RESEARCH ON ANTENNA RCS REDUCTION TECHNIQUE BASED ON EBG STRUCTURE	1215
<i>Keyu Yi ; Chuanfang Zhang ; Shuaike Huo ; Haipeng Liu ; Yannan Zhang</i>	
2-BIT PROGRAMMABLE DIGITAL METASURFACE FOR CONTROLLING ELECTROMAGNETIC WAVE	1218
<i>Xiaohong Zhang ; Hui Zhang ; Jianxun Su ; Zengrui Li</i>	
AN EFFECTIVE PRECONDITIONER FOR THE IE-NDDM-MLFMA METHOD FOR ANALYZING EM SCATTERING FROM ELECTRICALLY LARGE PEC OBJECTS	1221
<i>Kai-Lai Zheng ; Peng Chu ; Wei-Bin Kong ; Feng Xu</i>	
AN EFFICIENT FGG-FG-FFT WITH ADAPTIVE CROSS APPROXIMATION FOR SOLVING ELECTROMAGNETIC SCATTERING PROBLEMS	1224
<i>Wei-Bin Kong ; Feng Zhou ; Kai-Lai Zheng ; Jia-Ye Xie ; Ru-Gang Wang</i>	
DESIGN AND EXPERIMENT OF A MINIATURIZED HIGH-EFFICIENCY PRINTED RECTIFIER	1227
<i>Lingfeng Li ; Xuexia Yang ; Erjia Liu ; Geliang Zhu</i>	
A 90–120 GHZ DRIVER AMPLIFIER WITH 70NM INP PHEMT	1230
<i>Liu Jun ; Yu Weihua ; Lv Xin</i>	

5G COMPATIBLE FRONT-HAUL TRANSMISSION OF OFDM-MIMO SIGNAL OVER MULTICORE FIBERS	1233
<i>Li-Yan Zhu ; Ming Tang ; Xiao-Chuan Wang</i>	
DESIGN AND IMPLEMENTATION OF A KA-BAND MMIC DRIVER AMPLIFIER AND MODULE	1236
<i>Jianyu Ma ; Debin Hou</i>	
ACCURATE BOUNDARY EXTRACTION METHOD BY RANGE POINTS MIGRATION FOR MICROWAVE NON-DESTRUCTIVE MONITORING	1239
<i>Shouhei Kidera ; Shuto Takahashi</i>	
A VOLUME INTEGRAL EQUATION METHOD FOR MRI-BASED ELECTRICAL PROPERTIES TOMOGRAPHY	1242
<i>Ronghan Hong ; Shengnan Li ; Jianhua Zhang ; Youyu Zhang ; Na Liu ; Zhiru Yu ; Qing Huo Liu</i>	
COMPRESSIVE-PROCESSING MICROWAVE IMAGING	1245
<i>N. Anselmi ; L. Poli ; G. Oliveri ; A. Massa</i>	
ADVANCES IN MULTI-RESOLUTION APPROACHES FOR COMPUTATIONAL INVERSE SCATTERING — ON THE INTEGRATION OF SPARSE RETRIEVAL WITHIN THE MULTI-RESOLUTION INVERSION	1248
<i>Lorenzo Poli ; Giacomo Oliveri ; Andrea Massa</i>	
RECONSTRUCTION OF DIELECTRIC OBJECTS USING DIFFRACTION TOMOGRAPHY OF ULTRASONIC WAVE	1251
<i>Jian Zhang ; Chun Xia Yang ; Mei Song Tong</i>	
DEVICE-FREE HUMAN MONITORING USING CHANNEL STATE INFORMATION	1253
<i>F. Viani ; A. Polo ; M. D. Migliore</i>	
APPLICATION OF THE MULTIPLICATIVE REGULARIZATION SCHEME TO ELECTRICAL IMPEDANCE TOMOGRAPHY	1256
<i>Ke Zhang ; Maokun Li ; Fan Yang ; Shenheng Xu ; Aria Abubakar</i>	
EM SCATTERING OF ELECTRICALLY LARGE TARGET ABOVE SEA SURFACE WITH SDFSM-SBR METHOD	1259
<i>Tiantian Feng ; Lixin Guo</i>	
A PRINTED MAGNETO-ELECTRIC DIPOLE BASED ON SUBSTRATE INTEGRATED GAP WAVEGUIDE	1262
<i>Chaojun Ma ; Ming Dong ; Dongya Shen</i>	
L-SHAPE SQUARE SLOT CIRCULARLY POLARIZED ANTENNA WITH UNIDIRECTIONAL RADIATION PATTERN	1265
<i>Rui Xu ; Jian-ying Li ; Jie Liu ; Du-Juan Wei</i>	
MULTIBAND PIFA ANTENNA FOR UHF RFID TAG	1268
<i>Jui-Han Lu ; Feng-Chuan Tsai</i>	
A LOW-PROFILE DUAL-BAND ANTENNA LOADED WITH THE AMC SURFACE	1270
<i>Kedi Zhang ; Xiangyu Zhou ; Zichun Wei ; Huiqing Zhai</i>	
HYBRID MIMO ANTENNAS FOR FUTURE 5G SMARTPHONE APPLICATIONS	1273
<i>S. Kahng ; M. K. Khattak ; M. S. Khattak ; A. Rehman ; C. Lee ; D. Han ; H. Park</i>	
ANALYSIS OF SIW 2×2 SLOT ARRAY ANTENNAS EXCITED BY TE₂₀MODE	1276
<i>Junlin Zhan ; Feng Xu ; Zhongwei Yang</i>	
A HALF-SPACE COVERED ANTENNA FOR AIR-GROUND COMMUNICATION	1279
<i>Guanshen Chenhu ; Junping Geng ; Han Zhou ; Jianping Li ; Liang Liu ; Yifeng Chen ; Yuliang Liang ; Xianling Liang ; Weiren Zhu ; Ronghong Jin</i>	
A HIGH-GAIN MAGNETO-ELECTRIC DIPOLE ANTENNA	1282
<i>Hong Yuan ; Xingxing Li ; Xinfang Shuai ; Wenping Ren ; Taoyan Zhang ; Dongya Shen</i>	
EPSILON-NEGATIVE TRANSMISSION LINE-BASED MICROSTRIP ANTENNA FOR CONFORMAL APPLICATIONS	1285
<i>Wangwang Han ; Haobin Zhang ; Liang Wang</i>	
A HIGH-GAIN COMPACT SIZE FOUR-PORT MIMO ANTENNA ARRAY WORKING AT 28 GHZ	1287
<i>Hailong Yu ; Dazhi Piao</i>	
LOW-PROFILE END-FIRE PHASED ARRAY WITH OMNI-DIRECTIONAL SCANNING CHARACTERISTICS	1289
<i>Fang Wang ; Shiwen Yang ; Yikai Chen ; Shiwei Qu</i>	
DESIGN OF A MILLIMETER WAVE MICROSTRIP ARRAY ANTENNA FOR 5G	1292
<i>Yuguo Lu ; Hongfu Meng ; Wenbin Dou</i>	
A NEW COMPACT DUAL-BAND CP ANTENNA FOR GPS AND DSRC APPLICATIONS	1295
<i>You-Zhi Hu ; Bin-Jie Hu ; Hong-Lin Zhang</i>	
A GAIN-ENHANCED WIDEBAND DUAL-POLARIZED ANTENNA BASED ON SRRS AND CSRRS	1298
<i>Yu-Hui Ren ; Xue Liao ; Han-Dong Wu ; Bao-Jian Gao ; Zhou-Hu Deng ; Fu-Wei Wang ; Ke Li ; Jin-Ping Niu</i>	
PARASITIC RING LOADED WIDEBAND CIRCULARLY POLARIZED CAVITY-BACKED SLOT ANTENNA	1301
<i>Yi-Xuan Zhang ; Yong-Chang Jiao ; Huan Zhang</i>	
A WIDEBAND TRANSPARENT ABSORBER FOR MICROWAVE AND MILLIMETER WAVE APPLICATION	1304
<i>Baoyue Xue ; Yue Hu ; Bian Wu ; Liang Chen ; Wei Zhang</i>	
DESIGN OF A BAND-PASS FSS WITH STEEP-REJECTION STOPBAND BY EQUIVALENT CIRCUIT METHOD	1307
<i>Yuan Xu ; Mang He ; Chuanfang Zhang ; Houjun Sun</i>	
ULTRA-THIN BROADBAND MICROWAVE ABSORBER USING RESISTIVE SHEETS	1310
<i>Shicheng Liu ; Haiming Wang</i>	

TUNABLE ULTRA-THIN P-BAND ABSORBER BASED ON PERMEABILITY-NEAR-ZERO METAMATERIAL	1313
<i>Hua Huang ; Wenjun Wang ; Junming Zhao ; Tian Jiang ; Bo Zhu ; Yijun Feng</i>	
PLANAR PHASELESS NEAR-FIELD ANTENNA MEASUREMENTS USING INTERPOLATION ALGORITHM AND SOURCE EQUIVALENCE THEOREM	1316
<i>Wang Yuan ; Shang Junping ; Zuo Yanchun ; Song Kang</i>	
A COMPACT DOUBLE-NEGATIVE METAMATERIAL FOR MIDRANGE WIRELESS POWER TRANSFER	1319
<i>Hui-Fen Huang ; Shuai-Nan Li</i>	
DESIGNER LOCALIZED SURFACE PLASMONS ON CORRUGATED RING WITH A SLIT	1322
<i>Chao Zhang ; Liu Yang ; Qian Xun Xiao ; Yong Jin Zhou</i>	
TUNABLE SPOOF LOCALIZED SURFACE PLASMONS ON METALLIC SPIRAL STRUCTURES	1325
<i>Rong Lin Shao ; Jing Cai ; Yong Jin Zhou</i>	
ELECTROMAGNETIC SCATTERING CHARACTERISTICS OF THE PLASMA SHEATH AROUND RE-ENTRY HYPERSONIC VEHICLES	1328
<i>Run-hui Wu ; Jia-qi Liu ; Gang Meng ; Xin Liu ; Ai-min Ren ; Xia Ai ; Song Chai ; Ju-yan Zhao ; Ya-nan Li ; Ming-liang Wang</i>	
ANALYSIS OF MEASURED SEA CLUTTER POWER DISTRIBUTION BASED ON GOODNESS-OF-FIT TESTS	1331
<i>Xiaoyan Du ; Peipei Wei ; Guojun Tian</i>	
DUAL-POLARIZATION ABSORPTIVE/TRANSMISSIVE FREQUENCY-SELECTIVE SURFACE UTILIZING COMPOSITE METAMATERIAL	1334
<i>Fanfan Xu ; Wenjun Wang ; Tian Jiang ; Junming Zhao ; Bo Zhu ; Yijun Feng</i>	
FULLY-PRINTED S-BAND SRR/WIRE NRI LENS WITH REDUCED WIRE DENSITY	1337
<i>Kimberley W. Eccleston ; Ian G. Platt ; Adrian E.-C. Tan ; Ian M. Woodhead</i>	
ELECTROMAGNETIC SCATTERING OF GROUND SURFACE COMBINING WITH MAN-MADE TARGET: MODELING AND SIMULATION	1340
<i>Peng Guo ; Chufeng Hu ; Lifang Guo ; Nanjing Li</i>	
OPTIMAL CLOAK OF ANISOTROPIC SPHERES	1343
<i>Lin Zhang ; Qi Yang ; Yan Shi ; Long Li</i>	
THE SCATTERING CHARACTERISTIC MAPPING RELATION OF SIMILAR TARGETS	1346
<i>Li Jianzhou ; Liu Lu ; Wang Wenzhuo ; Fan Chaoqun ; Wang Xiaoyang</i>	
ACCURACY COMPARISON OF ASED BASIS FUNCTION AND CHARACTERISTIC BASIS FUNCTION FOR SCATTERING ANALYSIS OF FINITE PERIODIC ARRAYS	1349
<i>Ping Du ; Cheng Wang</i>	
AN EFFICIENT PLANAR META-LENS AS CONVERGED VORTEX BEAM GENERATOR IN MICROWAVE REGION	1352
<i>Qun Wu ; Yueyi Yuan ; Xumin Ding ; Kuang Zhang</i>	
A STACKED DUAL-MODE BANDPASS FILTER WITH CIRCULAR CAVITY	1355
<i>Zhang Ke-Qing ; Hao Tian-qi ; Wu Zhi-Hang ; Wang Zheng-Bin</i>	
DESIGN OF A COMPACT DIPLEXER USING MICROSTRIP AND SLOTLINE DUAL-MODE RESONATORS	1358
<i>Baoping Ren ; Zhewang Ma ; Haiwen Liu ; Masataka Ohira ; Pin Wen ; Xiaolong Wang ; Xuehui Guan</i>	
LUMPED-ELEMENT ABSORPTIVE BANDSTOP FILTER BASED ON DUAL COMPOSITE RIGHT/LEFT HANDED TRANSMISSION LINE	1361
<i>Cai Liu ; Meiling Li ; Qi Zhu</i>	
AN IMPROVED CPW TO CPS BALUN FOR WIDEBAND APPLICATIONS	1364
<i>Fusheng Wang ; Shufang Liu ; Jingya Zhang ; Gaoling Zhang ; Xiaowei Shi</i>	
A NOVEL QUAD-MODE RESONATOR AND FILTER	1367
<i>Lu Qian ; Qing-Xin Chu</i>	
THE 220GHZ TERAHERTZ RADAR SYSTEM FOR ATMOSPHERE OBSERVATION	1370
<i>Hu Weidong ; Li Yameng ; Chen Shi ; Cao Guicai ; Leo P. Ligthart</i>	
130 GHZ ON-CHIP DIELECTRIC RESONATOR ANTENNA ARRAY IN CMOS TECHNOLOGY	1373
<i>Debin Hou ; Wei Hong ; Jixin Chen ; Zhe Song ; Pinpin Yan ; Yong-Zhong Xiong</i>	
DISCUSSION OF HUMIDITY'S INFLUENCE ON ELECTROSTATIC DISCHARGE	1375
<i>Zhou Lei ; Yan Wei</i>	
STUDY ON THE INFLUENCE OF FREQUENCY SPLITTING OF A WPT SYSTEM ON HIGH FREQUENCY CONDUCTED EMI	1378
<i>Heyuan Qi ; Wenjie Chen ; Tianluan Xiao ; Yaqiang Han ; Yilin Sha</i>	
THE NUMBER OF CHAINED π-TYPE CIRCUITS FOR DYNAMIC ANALOGY OF HALF-WAVELENGTH TRANSMISSION LINE CONSIDERING SHORT-CIRCUIT FAULT	1381
<i>Yurong Li ; Chongqing Jiao ; Bei Wang</i>	
MODELLING THE CAUER THERMAL NETWORK FOR PRESS PACK IGBTs	1384
<i>Jinyuan Li ; Erping Deng ; Zhibin Zhao ; Peng Zhang ; Yaosheng Li</i>	
APPLICATION OF RESISTIVE GRAPHENE LID FOR SUPPRESSING RADIATION EMISSION IN WB-BGA PACKAGE	1387
<i>Ping Cheng ; Xiao-Li Yang ; Le Zhang ; Hang Jin ; Yong-Sheng Li ; Bin Li ; Er-Ping Li</i>	
THE DESIGN OF 110KV SUBSTATION GROUNDING GRID WITH HIGH RESISTIVITY SOIL	1390
<i>Mohammed Abdalldaim ; Ping Wang ; Lin Li</i>	
AUTOMOTIVE ANTENNA PLACEMENT AND EMC ANALYSIS COMBINING MEASUREMENT WITH SIMULATION	1393
<i>P. W. Futter ; L. Scialacqua ; L. J. Foged ; J. Soler</i>	

THE TEM NORMALIZED MEAN BRANCHES NUMBER (NMBN) OF THE CG LIGHTNING NEAR THE GROUND BY THE COAXIAL UNIFICATION FRACTAL MODEL (CUFM)	1396
<i>Nan Wang</i>	
MODELING AND ANALYSIS ON RADIATION OF ON-CHIP POWER RING	1401
<i>Yibin Wang ; Cexing Wang ; Tao Su</i>	
STUDY ON THE ISSUE OF ELECTRIC FIELD CONCENTRATION IN SUBMODULE OF PRESS PACK IGBTs	1404
<i>Jinyuan Li ; Junda Sun ; Zhibin Zhao ; Peng Zhang ; Nanwei Guo</i>	
CHARACTERISTICS OF PETT OSCILLATION AND ESTIMATION OF FREQUENCY	1407
<i>Xinling Tang ; Rui Jin ; Zhouwei Ni ; Yan Pan ; Zhibin Zhao ; Xiang Cui</i>	
THE PROGRESS IN FSS RADOMES DESIGN	1410
<i>Zhang Qiang</i>	
CHAOTIC SPREAD SPECTRUM FOR EMI REDUCTION IN DC-DC CONVERTER	1413
<i>Hong Ge Li ; Wei Ye Cai ; Si Di Gong</i>	
MODELING AND SIMULATION OF SIC MOSFET TURN-OFF OSCILLATION UNDER INFLUENCE OF PARASITIC PARAMETER	1416
<i>Junji Ke ; Zhibin Zhao ; Zongkui Xie ; Changjun Wei ; Peng Sun</i>	
RCS REDUCTION STUDY OF THZ MICROSTRIP ANTENNA BASED ON ITO ABSORBING STRUCTURE	1419
<i>Yonglong Li ; Limei Qi ; Yuan Yao ; Xiaoming Liu ; Zhijiao Chen ; Junsheng Yu ; Xiaodong Chen</i>	
COMPRESSED SENSING IMAGING BASED ON HIGH Q METAMATERIAL APERTURE ELEMENT	1422
<i>Shun-Cheng Tian ; Long Li</i>	
A HIGH-GAIN LENS ANTENNA BASED ON NOVEL LEFT-HANDED METAMATERIAL	1425
<i>Jian Yang ; Feng Xu ; Wenjian Chen ; Lewei Cao</i>	
A WIDEBAND FREQUENCY SELECTIVE SURFACE WITH COMPOUND RING STRUCTURE	1428
<i>Zisheng Gao ; Jianbo Wang ; Jun Liu ; Guang Hua</i>	
DESIGN OF HIGH-GAIN LENS ANTENNA FOR 5G APPLICATION	1431
<i>Bo He ; Yong-Chang Jiao ; Huan He</i>	
DUAL-BAND FREQUENCY-RECONFIGURABLE ANTENNA WITH MEANDERED-LINE-BASED METASURFACES	1434
<i>Huan Zhang ; Yong-Chang Jiao ; Rui-Qi Wang</i>	
BANDWIDTH RECONFIGURABLE ANTENNA WITH THREE STEP-SHAPED SLOTS	1436
<i>Linglong Meng ; Weimin Wang ; Jinchun Gao ; Yuanan Liu</i>	
ULTRA-LOW SIDELobe AND HIGH GAIN MILLIMETER WAVE MICROSTRIP ARRAY ANTENNA	1438
<i>Wen Chen ; Yuan Yao ; Junsheng Yu ; Xiaoming Liu ; Limei Qi ; Zhijiao Chen ; Xiaodong Chen</i>	
DESIGN OF SHORT BACKFIRE ANTENNA ARRAYS WITH HIGH GAIN AND LOW SIDELobe LEVEL	1441
<i>Gaonan Zhou ; Qiuyan Liang ; Baohua Sun</i>	
DESIGN OF A ROTMAN LENS BASED ON GENETIC ALGORITHM	1444
<i>Qiuyan Liang ; Gaonan Zhou ; Baohua Sun</i>	
DESIGN OF UNEQUAL POWER DIVIDER WITH HIGH DIVIDING RATIO AND TUNABLE OPERATING FREQUENCY	1447
<i>Xiutiao Ye ; Can Cui ; Wentao Li ; Xiaowei Shi</i>	
LOW PROFILE BROADBAND DUAL POLARIZED PATCH SUB-ARRAY WITH HIGH ISOLATION	1450
<i>Hong-wei Yu ; Yong-chang Jiao</i>	
WIDEBAND PATCH ANTENNA FOR Q BAND APPLICATION	1452
<i>Zheng Gan ; Zhi-Hong Tu ; Ze-Ming Xie</i>	
LARGE-SPACE WIDE BAND PHASED ARRAY ANTENNA	1454
<i>Q.C. Zhang ; X.L. Zhang ; Q.H. Lai</i>	
SYNTHESIS OF NONUNIFORM SPARSE LINEAR ARRAY ANTENNA USING WHALE OPTIMIZATION ALGORITHM	1456
<i>Pengliang Yuan ; Chenjiang Guo ; Jun Ding ; Yan Qu</i>	
A FILTERING ANTENNA ARRAY BASED ON MULTIMODE RESONATOR	1459
<i>Jia-xing Xue ; Ze-ming Xie</i>	
A SINGLE-LAYER BROADBAND DUAL-BAND LINEARLY POLARIZED REFLECTARRAY	1462
<i>Qi Zheng ; Chenjiang Guo ; Yan Qu ; Jun Ding</i>	
BROADBAND MIMO ANTENNA USING THE THEORY OF CHARACTERISTIC MODES	1465
<i>Sheng Wen Mao ; Xi Wang Dai ; Xiao Hong Zhang ; Hua Yan Jin ; Guo Qing Luo</i>	
WIDEBAND MILLIMETER WAVE CIRCULARLY POLARIZED SUBSTRATE INTEGRATED WAVEGUIDE END-FIRE ANTENNA ARRAY	1468
<i>Yang Cai ; Yingsong Zhang ; Liu Yang ; Yufan Cao ; Zuping Qian</i>	
A K-BAND SERIES-FED MICROSTIP ARRAY ANTENNA WITH LOW SIDELobe FOR ANTICOLLISION RADAR APPLICATION	1471
<i>Yu-lin Chang ; Yong-chang Jiao ; Li Zhang ; Guantao Chen ; Xiaohui Qiu</i>	
A 2-D MULTI-BEAM ANTENNA WITH FULL AZIMUTH COVERAGE	1473
<i>Junxiao Wang ; Feng Yang ; Kuixi Yan ; Ximeng Wang</i>	
A DUAL-CIRCULARLY-POLARIZED ANTENNA ARRAY FOR SATCOM-ON-THE-MOVE SYSTEM	1476
<i>Zhenxing Liu ; Lei Ji ; Peiyun Geng ; Qiulin Huang</i>	
A COMPACT UWB MIMO ANTENNA FOR 4.5G/5G WEARABLE DEVICE APPLICATIONS	1479
<i>Yixin Li ; Huafeng Shen ; Huanqing Zou ; Hongwei Wang ; Guangli Yang</i>	
DESIGN OF 6 × 6 DUAL-BAND MIMO ANTENNA ARRAY FOR 4.5G/5G SMARTPHONE APPLICATIONS	1482
<i>Huanqing Zou ; Yixin Li ; Huafeng Shen ; Hongwei Wang ; Guangli Yang</i>	

CIRCULARLY POLARIZED SLOTTED WAVEGUIDE ARRAY BASED ON MULTI-CASCADED RIDGED WAVEGUIDE POWER DIVIDER	1485
<i>Cheng Yang ; Hong-Tao Zhang ; Wei Wang</i>	
A NOVEL REFLECTIVE METASURFACE GENERATING CIRCULAR POLARIZED ORBITAL ANGULAR MOMENTUM	1488
<i>Guan-tao Chen ; Yong-chang Jiao ; Gang Zhao ; Yu-lin Chang</i>	
A MULTI-CLUSTER GEOMETRY-BASED STOCHASTIC MODEL FOR 5G MASSIVE MIMO CHANNELS IN NLOS ENVIRONMENT	1490
<i>Yuyun Hu ; Cheng Chen ; Ting Fang ; Menglu Qiao</i>	
A COMPACT K-BAND PLANAR ANTENNA WITH HIGH GAIN AND NARROW BEAM	1493
<i>Ximeng Wang ; En Li ; Junxiao Wang ; Kuixi Yan ; Weizhi Sun</i>	
WIDEBAND MICROSTRIP MIMO ANTENNA FOR MILLIMETER-WAVE APPLICATIONS	1496
<i>Jia-Tian Weng ; Qing-Xin Chu</i>	
S-BAND DUAL CIRCULARLY POLARIZED MICROSTRIP PATCH ANTENNA ARRAY FOR SATELLITE COMMUNICATION	1498
<i>Zhaoming Zhang ; Tianling Zhang ; Chao Guo ; Xiaolin Hou ; Zehong Yan</i>	
LOW ANGLE TARGET DETECTION METHOD FOR UHF NON-COOPERATIVE RADAR IN MULTIPATH	1501
<i>Panhe Hu ; Pengjiang Hu ; Qinglong Bao ; Zengping Chen</i>	
A JOINT DOA-DOD ESTIMATION BASED ON IMPROVED ESPRIT METHOD FOR BISTATIC MIMO RADAR	1504
<i>Yurou Tian ; Jingqi Wang ; Can Cui ; Jing Tan ; Wei Xue</i>	
A COMPACT WIDEBAND COUPLER FOR SINGLE-ANTENNA MICROWAVE RADAR	1507
<i>Xiaoqiang Li ; Ming Cai ; Wei Shi ; Guangli Yang</i>	
DESIGN AND IMPLEMENTATION OF A RADAR WAVEFORM PLAYBACK SYSTEM FOR REAL-TIME DIGITAL SIGNAL PROCESSING TEST	1510
<i>Yingxiao Zhao ; Yang Su ; Rui Huang ; Pengjiang Hu ; Zengping Chen</i>	
A COMPACT BANDPASS FILTER BASED ON CO-DESIGN OF HIGHLY EFFICIENT POWER AMPLIFIER	1513
<i>Sheng Fang ; Ze-ming Xie</i>	
A VELOCITY ESTIMATION ALGORITHM FOR STEPPED FREQUENCY RADAR COMBINING KEYSTONE TRANSFORM AND RADON TRANSFORM	1516
<i>Ruiqi Tian ; Caiyong Lin ; Qinglong Bao ; Zengping Chen</i>	
EFFICIENT NUMERICAL MODEL FOR RADAR IMAGING FOR TARGETS WITHIN A HALF-SPACE	1519
<i>Yue Wang ; Zaiping Nie ; Xin Qi</i>	
S-BAND T/R MODULE IN MASSIVE MIMO SYSTEM FOR 5G MOBILE COMMUNICATION	1522
<i>Hu Xiao ; Jianzeng Zhang ; Zhipeng Zhou</i>	
SIMULATION AND ANALYSIS OF INFLUENCE OF RANGING ERROR ON LOCATION ESTIMATION ACCURACY	1525
<i>Xiaojun Zhang ; Yuanjian Liu ; Shuangde Li ; Xiang Zhu</i>	
POST-WALL SLOTLINE-MICROSTRIP LINE TRANSITION FOR SHORT PULSE TRANSMISSION	1528
<i>Ying Zhuang ; Shunli Li ; Yufu Li ; Hongxin Zhao ; Xiaoxing Yin</i>	
DESIGN OF LOW-LOSS COAXIAL CAVITY BANDPASS FILTER USING IN BROADCASTING WITH FULL-CHANNEL TUNING CAPABILITIES	1531
<i>Xiaodi Zhang ; Qiang Sui ; Qi Wang ; Pingzhong Wang ; Xiaoyang Wang</i>	
A WIDEBAND SWITCHED BEAM ANTENNA FOR FULL 360° COVERAGE	1534
<i>Yang Li ; Zhang-Cheng Hao</i>	
INTEGRATED OPTIMIZATION OF ANTENNA ARRAYS WITH RADOME BASED ON PARTICLE SWARM OPTIMIZATION	1537
<i>Zi-yu Lu ; Chang Zhai ; Xun-wang Zhao ; Yu Zhang</i>	
ANALYSIS OF RADOME-ANTENNA SYSTEMS USING HIGHER-ORDER BASIS BASED DOMAIN DECOMPOSITION METHOD	1540
<i>Hao Li ; Yingyu Liu ; Daniel Garcia-Donoro ; Zhongchao Lin ; Yu Zhang</i>	
MODELING OF DIELECTRIC RECTANGULAR WAVE PORTS FOR HIGHER-ORDER METHOD OF MOMENTS	1543
<i>Yuan Wang ; Zhongchao Lin ; Daniel Garcia-Donoro ; Yu Zhang</i>	
WIDEBAND DUAL-SENSE CIRCULARLY POLARIZATION HELICAL ANTENNA WITH AXIAL DUAL-BEAM OPERATION	1546
<i>Yanqun Liu ; Xiaoxing Yin ; Hongxin Zhao ; Shunli Li</i>	
DESIGN OF A NOVEL 100KHZ~6GHZ ISOTROPIC ELECTRIC-FIELD PROBE	1549
<i>Jiawen Sun ; Yong Wang ; Jinxian Liu ; Wanshun Jiang</i>	
DESIGN OF A NOVEL 3MHZ~18GHZ ISOTROPIC ELECTRIC-FIELD PROBE	1552
<i>Jiawen Sun ; Qiantao Cao ; Yong Wang ; Jinxian Liu ; Wanshun Jiang</i>	
DESIGN AND SIMULATION OF ENERGY SELECTIVE RADOME INTEGRATED WITH MONOPOLE ANTENNA	1555
<i>QiHui Zhou ; Peiguo Liu ; Ke Wang ; Hao Tu ; Hanqing Liu</i>	
A DUAL-BAND LEFT-HANDED METAMATERIAL COMPOSED OF DOUBLE E-SHAPED INTERSECTIONS IN 3D PERIODIC ARRANGEMENT	1558
<i>Haixiong Li ; Jun Ding ; Chenjiang Guo</i>	
COMPACT SPOOF SURFACE PLASMON POLARITONS GUIDE	1561
<i>Zhixia Xu ; Shunli Li ; Hongxin Zhao ; Leilei Liu ; Xiaoxing Yin</i>	

TUNABLE PERIODIC SLOW-WAVE TRANSMISSION LINE	1564
<i>Xin Zhang ; Zhixia Xu</i>	
A NOVEL DUAL-BAND FREQUENCY SELECTIVE SURFACE WITH CLOSE BAND SPACING AT KA-BAND	1567
<i>Zhenzhen Zhao ; Ying Yang ; Huimin Huo ; Jianxing Li ; Jianzhong Chen ; Anxue Zhang</i>	
FAR-FIELD AND NEAR-FIELD WAVEFRONT MANIPULATIONS ENABLED BY METASURFACES	1570
<i>Yue Li ; Shiyi Xiao ; Qiong He ; Shulin Sun ; Lei Zhou</i>	
POLARIZATION CONVERSION WITH ASYMMETRICAL AND SYMMETRICAL METASURFACE	1573
<i>Wenlin Zheng ; Shiyi Xiao ; Shaojie Ma ; Yue Li ; Weijie Luo ; Lei Zhou</i>	
MULTI-LAYER FREQUENCY SELECTIVE SURFACE WITH LOW-FREQUENCY ULTRA-WIDE BAND-PASS RESPONSE	1576
<i>Qiang Zhao ; Tao Hong ; Wen Jiang ; Shuxi Gong</i>	
DESIGN, SIMULATION AND MEASUREMENT OF AN OMEGA METAMATERIAL AT X BAND	1578
<i>Dahai Hu ; Rui Zhao ; Liuge Du ; Yahai Wang</i>	
DESIGN OF POLARIZATION CONVERTER BASED ON THE HIGH EFFICIENCY TRANSMISSION PHASE GRADIENT METASURFACE	1581
<i>Zhi Li ; Jianxun Su ; Zengrui Li</i>	
A BROADBAND REJECTION FILTER BASED ON SPOOF SURFACE PLASMON POLARITONS	1584
<i>Weijie Fu ; Youfei Zhang ; Haogang Wang</i>	
MODELING THIN GRAPHENE SHEETS WITH EFFICIENT 2-D WLP-FDTD METHOD	1587
<i>Qi-Yuan Zhu ; Wei-Jun Chen</i>	
A METHOD OF CONSTRUCTING PRECONDITIONED FOR IE-ODDM	1590
<i>Guang-Yu Zhu ; Hou-Xing Zhou ; Yi-Zhi Li ; Wei Hong</i>	
BRIGHTNESS TEMPERATURE RADIATION IMAGING SIMULATION BASED ON FAST RAY TRACING METHOD	1593
<i>Menglu Qiao ; Gang Liu ; Ting Fang ; Cheng Chen ; Yuyun Hu ; Chuan Yin</i>	
BUILDING ODDM BASED ON CALDERÓN PRECONDITIONED CFIE	1596
<i>Guang-Yu Zhu ; Hou-Xing Zhou ; Wei Hong</i>	
FAST FITTING MEI'S COEFFICIENTS WITH MUR'S COEFFICIENTS BASED ON FINITE DIFFERENCE METHOD	1599
<i>Xiangwu Zhang ; Lianyou Sun ; Wei Hong</i>	
ISAR IMAGING OF ROUGH SURFACE TARGETS BASED ON A TERAHERTZ RADAR SYSTEM	1602
<i>Qi Yang ; Bin Deng ; Hong-qiang Wang ; Yu-liang Qin</i>	
TWO-LAYERED ROUGH SURFACES MODELING BASED ON THE PHYSICAL OPTICS IN TERAHERTZ GAP	1605
<i>R. Wang ; C Zhang ; L. X. Guo ; Z. B. Zhang</i>	
A MILLIMETER-WAVE SCANNING IMAGING METHOD FOR FAST PERSONAL SCREENING	1608
<i>Yanwen Jiang ; Bin Deng ; Hongqiang Wang ; Yuliang Qin ; Zhaowen Zhuang</i>	
LOW SIDELobe NULLING OF SPARSE LINEAR ARRAY USING A HYBRID METHOD	1611
<i>Rui-Qi Wang ; Yong-Chang Jiao</i>	
ROBUST DIAGNOSIS OF PLANAR ANTENNA ARRAYS THROUGH A BAYESIAN COMPRESSIVE SENSING APPROACH	1613
<i>A. Gelmini ; M. Salucci ; G. Oliveri ; A. Massa</i>	
LUNEBURG LENS IMAGING WITH COMPRESSIVE SENSING	1616
<i>Qiao Cheng ; Akram Alomainy ; Yang Hao</i>	
DESIGN OF A DUAL-BAND ORTHOGONALLY POLARIZED TRANSMITARRAY USING 3-DIPOLE ELEMENTS	1619
<i>Abdul Aziz ; Fan Yang ; Shenheng Xu ; Maokun Li</i>	
ANTENNA MEASUREMENTS BY DESIGN: A NOVEL PARADIGM FOR ANTENNA TESTING	1622
<i>Marco Salucci ; Giorgio Gottardo ; Daniele Pinchera ; Marco Donald Migliore</i>	
UHF RFID READER ANTENNA USING OPPOSITELY DIRECTED GROUP CURRENTS FOR LARGE IDENTIFICATION AREA	1625
<i>Haiyong Zhang ; Cheng Huang ; Jinqun Ge ; Wanchun Tang</i>	
EXPLOITING MODULARITY FOR NEW GENERATION ARRAY ARCHITECTURES — ANALYTIC TILING IN ARRAY SYNTHESIS	1628
<i>P. Rocca ; A. Massa</i>	
EFFICIENT PATTERN SYNTHESIS OF LARGE SCALE FOUR-DIMENSIONAL HETEROGENEOUS ANTENNA ARRAYS	1631
<i>Feng Yang ; Shiwen Yang ; Yikai Chen</i>	
MILLIMETER WAVE HIGH GAIN ANTENNA BASED ON GAP WAVEGUIDE TECHNOLOGY	1634
<i>Ashraf Uz Zaman ; Thomas Emanuelsson</i>	
TECHNOLOGY CHALLENGES IN MASSIVE-MIMO RADIATING PLATFORMS	1637
<i>André Doll ; Jean-Pierre Harel</i>	
A WIDEBAND MILLIMETER-WAVE CP ANTENNA WITH GAIN ENHANCEMENT	1639
<i>Hang Wong ; Kai Xu Wang ; Lei Ge ; Fa Ping Wang</i>	
NOVEL DUAL-POLARIZED AND CLOSELY DUAL-BAND FILTERING PATCH ANTENNA ARRAY WITH GOOD BAND-NOTCHED FUNCTION	1642
<i>Mengzhu Xun ; Wanchen Yang ; Wenjie Feng ; Wenquan Che ; Huayan Jin</i>	
A COMPACT MICROSTRIP ANTENNA WITH FOUR OPERATING FREQUENCY POINTS	1645
<i>Zhiwei Song ; Erping Li ; Hongxing Zheng ; Mengjun Wang</i>	

DESIGN OF QUAD-BAND ANTENNA	1648
<i>Zixiang Lin ; Xia Wang ; Hong-xing Zheng ; Mengjun Wang ; Er-ping Li</i>	
GROUND RADIATION ANTENNA FOR MOBILE DEVICES	1651
<i>Longyue Qu ; Hyung-Hoon Kim ; Hyeongdong Kim</i>	
A DUAL-BAND IMPLANTABLE ANTENNA DESIGNED FOR WIRELESS MEDICAL APPLICATIONS	1654
<i>Wen-jie Cui ; Hong-xing Zheng ; Lu Wang</i>	
GENERATING WIDEBAND ORBITAL ANGULAR MOMENTUM BEAMS USING HELICAL ANTENNA	1657
<i>Xiangyue Zhang ; Jiayu Zheng ; Shilie Zheng ; Xianbin Yu ; Hao Chi ; Xiaofeng Jin ; Xianmin Zhang</i>	
REALIZATION OF VARIOUS OAM DIVERGENCE ANGLES BASED ON FABRY-PEROT ANTENNA DESIGN	1660
<i>Maohua Zhu ; Xianling Liang ; Yu Yao ; Kaijie Zhuang ; Chaofan Ren ; Weiren Zhu ; Junping Geng ; Ronghong Jin</i>	
A MINIATURIZED QUAD-BAND PRINTED ANTENNA	1662
<i>Xing An ; Zhen-Bin Gao ; Hong-Xing Zheng ; Meng-Jun Wang ; Er-ping Li</i>	
UNDERSTANDING ANTENNA MUTUAL COUPLING THROUGH CHARACTERISTIC MODES	1665
<i>Qi Wu</i>	
NOVEL HIGH-EFFICIENCY HIGH-ORDER-MODE CAVITY-BACKED ARRAY ANTENNA USING METASURFACES WITH COMPLEMENTAL BOUNDARIES	1668
<i>Si Chen ; Wanchen Yang ; Wenquan Che ; Qian Meng ; Huiting Yu</i>	
EFFECT OF GEOMETRICAL PARAMETERS ON BEAM SCANNING CHARACTERISTICS OF REFLECTOR ANTENNAS	1671
<i>Shengpu Niu ; Biao Du ; Yang Wu</i>	
A DIRECTIONAL IMPLANTABLE ANTENNA OPERATING AT ISM BAND	1674
<i>Shu-Xian Dong ; Jia-Xing Wang ; Pei-Pei Zhang ; Li-Rong Zhao ; Cheng-Zhu Du ; Wei-Hua Zong ; Shandong Li</i>	
DESIGN OF TRI-BAND ANTENNA FOR WIMAX	1677
<i>Dong Nie ; Xia Wang ; Hong-xing Zheng ; Mengjun Wang ; Er-ping Li</i>	
DESIGN OF COAXIAL-FED SLOT-LOADED DUAL-BAND MICROSTRIP ANTENNA	1680
<i>Xin-Yan Wang ; Zhen-Bin Gao ; Hong-Xing Zheng ; Meng-Jun Wang ; Er-ping Li</i>	
TRIPLE-BAND TRIPLE-MODE MICROSTRIP ENDFIRE ANTENNA BASED ON PERIODIC BOWTIE DIPOLES	1683
<i>Zhiyuan Zeng ; Wenquan Cao ; Ximeng Lv</i>	
A HIGH GAIN OAM ANTENNA BASED ON SPLITTING SPIRAL PHASE PLATE FOR C BAND	1686
<i>Ling Zhang ; Hua Zhu ; Xiuping Li</i>	
CLUSTER-BASED ANALYSIS OF WIDEBAND MILLIMETER-WAVE CHANNEL FOR CORRIDOR ENVIRONMENT	1689
<i>Peize Zhang ; Hongbo Wang ; Haiming Wang ; Xiangqian Sun ; Yu Zhou</i>	
SIMULATION AND ANALYSIS OF UWB PROPAGATION CHARACTERISTICS IN INDOOR COMPLEX ENVIRONMENTS BASED ON TD-UTD	1692
<i>Zhipeng Chen ; Yuanjian Liu ; Shuangde Li ; Zhong Sheng</i>	
MEASUREMENT AND SIMULATION OF WIDEBAND CHANNEL CHARACTERIZATION IN THE UNDERGROUND TUNNEL ENVIRONMENT	1695
<i>Shuangde Li ; Yuanjian Liu ; Leke Lin ; Zhipeng Chen ; Xiaojun Zhang ; Xiang Zhu</i>	
MEASUREMENT-BASED VEHICLE EXTERIOR CHANNEL CHARACTERISTICS IN 45-GHZ BAND	1698
<i>Zhemin Shen ; Haiming Wang ; Chen Yu ; Wei Hong</i>	
RECONFIGURABLE PARTIALLY REFLECTIVE SURFACE ANTENNAS	1701
<i>Pei-Yuan Qin ; Y. Jay Guo ; Lu-Yang Ji</i>	
AN CASSEGRAIN REFLECTOR ANTENNA WITH AN ELLIPTIC BEAM OF LARGE AXIAL RATION	1704
<i>Shan Hong He ; Xiao Jia Lu ; Wen Kai Li ; Chong Fan</i>	
BOW-TIE SLOT ANTENNA BASED ON CIRCULAR SUBSTRATE INTEGRATED WAVEGUIDE CAVITY	1707
<i>Shui Liu ; Feng Xu ; Lewei Cao ; Ke Wu</i>	
FIELD DISTRIBUTION MEASUREMENT AND SOURCE ESTIMATION USING METAMATERIAL ABSORBER	1710
<i>Satoshi Yagitani ; Naoki Tonooka ; Ryohei Kanaura ; Mitsunori Ozaki ; Tomohiko Imachi ; Yoshiyuki Yoshimura ; Hirokazu Sugiura</i>	
TIME-DOMAIN FINITE DIFFERENCE ANALYSIS OF EMP COUPLING TO DOUBLE WIRES	1713
<i>Zhongwei Yang ; Feng Xu ; Junlin Zhan ; Ke Wu</i>	
SYNTHESIZING ORBITAL ANGULAR MOMENTUM BEAM WITH SMALL DIVERGENCE ANGLE	1716
<i>Yu Yao ; Xianling Liang ; Weiren Zhu ; Junping Geng ; Ronghong Jin</i>	
ELECTROMAGNETIC FIELDS INDUCED BY THE WAKE OF A MOVING SLENDER BODY IN TWO-LAYER OCEAN OF INFINITE DEPTH	1719
<i>Zhi-Hua Xu ; Chang-Ping Du ; Ming-Yao Xia</i>	
METAMATERIAL-INSPIRED MICROSTRIP ANTENNAS FOR WIRELESS COMMUNICATION SYSTEMS	1722
<i>Wangyu Sun ; Yue Li ; Zhijun Zhang ; Zhenghe Feng</i>	
A COMPACT SIZE BROADBAND DIPOLE TYPE ANTENNA	1725
<i>Wen-xin Yan ; Jian-ying Li ; Du-juan Wei</i>	
A WIDEBAND CIRCULARLY-POLARIZED CROSSED DIPOLE ANTENNA	1728
<i>Jie Ren ; Xianling Liang ; Junping Geng ; Weiren Zhu ; Ronghong Jin</i>	
A WIDEBAND DUAL-POLARIZED SLOT ANTENNA ARRAY FOR HIGH-GAIN MILLIMETER-WAVE COMMUNICATIONS	1731
<i>Zhijiao Chen ; Limei Qi ; Xiaoming Liu ; Yuan Yao ; Junsheng Yu ; Xiaodong Chen</i>	

PERFORMANCE ANALYSIS OF SKA DISH	1734
<i>Shengwen Liu ; Biao Du ; Yang Wu ; Guoxi Liu</i>	
A SUBSTRATE INTEGRATED MAGNETO-ELECTRIC DIPOLE ANTENNA USING METASURFACE FOR 2G/3G/LTE/5G APPLICATIONS	1737
<i>Jiexin Lai ; Botao Feng ; Qingsheng Zeng ; Kwok L. Chung</i>	
DESIGN OF A DUAL-BAND CONFORMAL ANTENNA ON A CONE SURFACE FOR MISSILE-BORNE	1740
<i>Changling Chen ; Huili Zheng</i>	
A WIDEBAND AND LOW-UNROUNDNESS PRINTED CONICAL EQUIANGULAR-SPIRAL ANTENNA	1743
<i>Chunbo Wu ; Mang He ; Chuanfang Zhang</i>	
A THREE-ELEMENT DUAL-POLARIZED ANTENNA ARRAY WITH BEAMWIDTH RECONFIGURATION	1746
<i>Yating Tu ; Botao Feng ; Mengyu Wang ; Xiaoyuan He ; Qingsheng Zeng</i>	
TRIPLE-BAND WIDE-ANGLE ULTRATHIN METAMATERIAL ABSORBER.....	1749
<i>Yao Ma ; Jun Liu ; Liyuan Su ; Feng Lu</i>	
A BAND-LIMITED CPWL-BASED MEMORY POLYNOMIAL MODEL FOR DIGITAL PREDISTORTION	1752
<i>Yang Li ; Jianfeng Zhai ; Chao Yu ; Zhengbo Jiang ; Lei Zhang</i>	
SIMULATION ON MICROWAVE MULTIMODE CAVITY HEATING WITH A ROTATING METAL BLOCK.....	1755
<i>Qian Meng ; Youqi Deng ; Yuanyuan Wu</i>	
Author Index	