

# **2019 International Conference on Microwave and Millimeter Wave Technology (ICMMT 2019)**

**Guangzhou, China  
19-22 May 2019**

**Pages 1-799**



**IEEE Catalog Number: CFP19779-POD  
ISBN: 978-1-7281-2169-7**

**Copyright © 2019 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:	CFP19779-POD
ISBN (Print-On-Demand):	978-1-7281-2169-7
ISBN (Online):	978-1-7281-2168-0

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

<b>A DUAL-BAND HIGH-GAIN SLOTTED SPHERICAL ANTENNA RADIATOR</b> .....	1
<i>Yujian Zhu ; Jin Li ; Guan-Long Huang ; Tao Yuan</i>	
<b>ENABLING ADDITIVE MANUFACTURING FOR MICROWAVE AND MM-WAVE COMPONENTS FABRICATION</b> .....	4
<i>Shiyu Zhang ; Darren Cadman ; Jyiannis C. Vardaxoglou ; Raj Mitra ; Will Whittow</i>	
<b>AN EXPERIMENTAL STUDY OF DIELECTRIC 3D PRINTED X-BAND ANTENNA</b> .....	7
<i>Zhaoyan Wang ; Bing Zhang</i>	
<b>A LOW-COST STEREO LITHOGRAPHY PRINTED X-BAND ANTENNA WITH METALLIC-PLATED SURFACE</b> .....	10
<i>Xuyi Zhu ; Bing Zhang</i>	
<b>HIGH SPEED WIRELESS COMMUNICATION SYSTEM AT W-BAND</b> .....	13
<i>Hang Jiang ; Caixia Wang ; Tao Xiu ; Dongdong Wang ; Susu Hu ; Xuefeng Zhan ; Junsheng Yu ; Xiaodong Chen ; Yuan Yao</i>	
<b>PLANAR WIDEBAND MM-WAVE ANTENNAS FOR MM-WAVE 5G APPLICATIONS</b> .....	16
<i>Zhang-Cheng Hao</i>	
<b>INTEGRATED DESIGN OF A CABLE-FED DUAL-BAND DUAL-POLARIZATION 5G MM-WAVE ANTENNA ARRAY WITH A U-SLOTTED FULL-METAL CASING FOR A CELLULAR PHONE</b> .....	19
<i>Yijin Wang ; Huan-Chu Huang ; Xianjing Jian</i>	
<b>SLOT COUPLED DIRECTIONAL WIDEBAND MILLIMETER-WAVE ANTENNA</b> .....	22
<i>Yue Dong ; Yingsong Li ; Yinfeng Xia</i>	
<b>AN ULTRA WIDEBAND ANTENNA BASED ON TIGHTLY COUPLED EFFECT WITH PRACTICAL COMPACT BALUN</b> .....	25
<i>Jialing Xie ; Chaolong Yi ; Yajun Fan ; Xu Fang ; Hanqing Qiao ; Yiping Shi ; Wenfeng Xia ; Yufeng Zhu ; Lei Shi ; Yanlei Lu ; Xingjia Zhang ; Xiangyu Wang</i>	
<b>WIDEBAND CYLINDRICAL CONFORMAL PATCH ANTENNA UNDER RADIATION OF DUAL-RESONANT MODES</b> .....	28
<i>Peng-Cheng Wang ; Hao-Fang Wang ; Zheng-Bin Wang ; Hua-Mei Zhang</i>	
<b>DESIGN OF AN ULTRA-WIDEBAND TIGHTLY COUPLED DIPOLE ARRAY</b> .....	31
<i>Tianyu Wang ; Yikai Chen ; Shiwen Yang</i>	
<b>RECTANGULAR PATCH ANTENNA BANDWIDTH ENHANCEMENT APPLYING NEW SLEEVE-ARM FEEDING</b> .....	33
<i>Honglin Zhang ; Jianbo Shao ; Shaowei Liao ; Binjie Hu</i>	
<b>A UNIPLANAR VIVALDI ANTENNA</b> .....	36
<i>Jiachen Du ; Qingfeng Zhang ; Amir Khurram Rasahid ; Xia Fen</i>	
<b>DESIGN APPROACH TO DUAL-RESONANT, VERY LOW-PROFILE CIRCULAR SECTOR PATCH ANTENNAS</b> .....	39
<i>Jian Yu ; Wen-Jun Lu</i>	
<b>A DUAL BAND DIFFERENTIAL PLANAR INVERTED F ANTENNA</b> .....	42
<i>Zijian Shao ; Guanghui Xu ; Yao-Ping Zhang ; Jun-Fa Mao</i>	
<b>SINGLE-FED SINGLE-PATCH DUAL-WIDEBAND DUAL-RADIATION PATTERN MICROSTRIP PATCH ANTENNA</b> .....	45
<i>Shuo Liu ; Shi-Wei Dong ; Xiao-Jun Li ; Xu-Min Yu ; Ying Wang ; Ya-Zhou Dong</i>	
<b>DESIGN OF A CPW-FED TRI-BAND ANTENNA WITH RECTANGULAR FRAMES</b> .....	48
<i>Haoran Xing ; Hong-Xing Zheng ; Mengjun Wang</i>	
<b>A COMPACT SHARED-APERTURE HYBRID-MODE ANTENNA FOR SUB-6G COMMUNICATION</b> .....	51
<i>Bei Huang ; Mochao Li ; Jialu Huang ; Weifeng Lin ; Jun Zhang ; Gary Zhang ; Fugen Wu</i>	
<b>A LOW-PROFILE DUAL-BAND DUAL-POLARIZED ANTENNA FOR BASE STATION APPLICATIONS</b> .....	54
<i>Jiacheng Zhao ; Yikai Chen ; Shiwen Yang</i>	
<b>MICROWAVE DEVICES BASED ON CVD-GROWN GRAPHENE</b> .....	57
<i>Wei-Bing Lu ; Hui Chen ; Zhen-Guo Liu ; Hao Chen ; An-Qi Zhang</i>	
<b>DESIGN OF DYNAMICALLY TUNABLE BROADBAND POLARIZATION CONVERTER IN TERAHERTZ FREQUENCY BASED ON GRAPHENE STRIPS</b> .....	59
<i>Tian-Cheng Zheng ; Lin Peng ; Xiao Liu ; Jing Ma ; Bin Shi ; Zhi-Hua Zhao</i>	
<b>GRAPHENE FILM BASED DUAL-BAND ANTENNA FOR 5G MOBILE COMMUNICATIONS</b> .....	62
<i>Rongguo Song ; Chunyu Liu ; Ran Fang ; Daping He ; Zhi Wu</i>	
<b>DUAL-BAND TUNABLE MID-INFRARED POLARIZATION CONVERTER BASED ON U-SHAPED GRAPHENE METAMATERIAL</b> .....	65
<i>Fang Zeng ; Longfang Ye ; Xiong Xu ; Xiaofan Yang</i>	
<b>GRAPHENE-BASED ABSORBING MATERIAL</b> .....	68
<i>Menglu Chang ; Aoyun Liu ; Fan Zhang ; Jingping Liu</i>	
<b>RECONFIGURABLE METAL-RIMMED ANTENNA FOR 4G/5G SMARTPHONES</b> .....	71
<i>Lei Ge</i>	
<b>MECHANICALLY MANIPULATION OF RADIATION BANDWIDTH FOR FABRY-PEROT RESONATOR ANTENNA</b> .....	74
<i>Fan Wu ; Kwai Man Luk</i>	

<b>BROADBAND PATTERN DIVERSITY ANTENNA WITH SWITCHABLE FEEDING NETWORK</b> .....	76
<i>Xijun Yang ; Lei Ge</i>	
<b>CIRCULAR PATCH ANTENNA WITH INDEPENDENT FREQUENCY AND POLARIZATION RECONFIGURATION</b> .....	79
<i>Hui Gu ; Jihong Zhang</i>	
<b>POLARIZATION-RECONFIGURABLE ANTENNAS FOR INTERNET OF THINGS</b> .....	82
<i>Zhe Chen ; Hang Wong ; Jun Xiang ; Shi-Zhong Liu</i>	
<b>SOURCE-INCORPORATED MI-D FADI-FDTD METHOD FOR COUPLED TRANSMISSION LINES</b> .....	85
<i>Eng Leong Tan ; Ding Yu Heh</i>	
<b>EFFECT OF SIGNAL CHARACTERISTICS ON FOCUSING PROPERTY OF TIME REVERSAL ELECTROMAGNETIC WAVE</b> .....	88
<i>Peng Liao ; Bin-Jie Hu ; Zhi-Wu Lin ; Qinglin Wen ; Li-Li Zheng</i>	
<b>AN EFFICIENT MODELING TECHNIQUE FOR TIME DOMAIN FIELD-TO-WIRE COUPLING IN THE MASSIVELY PARALLEL COMPUTER CODES JEMS-FDTD</b> .....	91
<i>Xuesong Meng ; Xianfeng Bao ; Yuteng Zheng ; Zhihong Ye ; Qiang Liu ; Haijing Zhou</i>	
<b>EFFECT OF ANTENNA LOCATION AND POLARIZATION ON RADIO WAVE PROPAGATION IN TUNNEL</b> .....	94
<i>Zhenyu Zhao ; Weibin Hou ; Junhong Wang</i>	
<b>A TRANSIENT MATERIAL SCHEME FOR REALIZING TIME REVERSAL MIRROR</b> .....	97
<i>Ren Wang ; Bing-Zhong Wang ; Hong-Cheng Zhou ; Mo-Ran Zhang ; Sheng Liu</i>	
<b>METHOD FOR SHAPING FIELD INTENSITY IN TARGET AREA</b> .....	100
<i>Shang Guo ; Deshuang Zhao ; Bing-Zhong Wang</i>	
<b>RESEARCH ON THE DISTRIBUTION OF THE REGIONAL ELECTROMAGNETIC RADIATION BASED ON THE INTERPOLATION METHODS</b> .....	103
<i>Jin Liu ; Song Shi ; Huaifang Li ; Minhong Wei ; Nan Mei ; Xin Wang ; Xiaoyu Wang</i>	
<b>MODAL DECOMPOSITION OF TRANSIENT RESPONSES IN WIRELESS POWER TRANSFER SYSTEM</b> .....	106
<i>Zhongkui Wen ; Qi Wu</i>	
<b>DESIGN OF A COMPACT BROADBAND ANTENNA FOR BASE STATIONS BASED ON THE CHARACTERISTIC MODE ANALYSIS</b> .....	109
<i>Qianyun Zhang ; Bai Lin ; Wei Su ; Yue Gao</i>	
<b>BANDWIDTH ENHANCING SLEEVE-ARM FEED FOR PATCH ANTENNA AND ITS CHARACTERISTIC MODES ANALYSIS</b> .....	112
<i>Honglin Zhang ; Shaowei Liao ; Jianbo Shao</i>	
<b>A METAL-FRAME ANTENNA FOR MOBILE APPLICATIONS</b> .....	115
<i>Chong-Zhi Han ; Guan-Long Huang ; Wei He ; Xiao-Chen Chen ; Tao Yuan</i>	
<b>A LOOP SENSING ANTENNA FOR CORROSION DETECTION OF FRP-STRENGTHENED STEEL STRUCTURE</b> .....	118
<i>Kwok L. Chung ; Wen Li ; Shushuai Xie ; Chuanwang Song ; Chunwei Zhang</i>	
<b>COMPACT FOLDED PATCH WITH STRETCHABLE PDMS SUBSTRATE FOR ON-BODY RFID APPLICATIONS</b> .....	121
<i>Yong-Hong Lee ; Eng-Hock Lim ; Wai-Hau Ng ; Fwee-Leong Bong ; Pei-Song Chee ; Kim-Yee Lee ; Boon-Kuan Chung</i>	
<b>THE PROBLEMS OF PLASMA ANTENNA RESEARCH PROJECT</b> .....	123
<i>Jian Sun ; Yi-Fang Xie ; Nai-Quan Wang ; Wei Dong ; Jing Luo ; Tao Chen</i>	
<b>A NOVEL MULTIBEAM ANTENNA USING PARASITIC PATCH AND SHORTING-PIN</b> .....	126
<i>Wenmei Zhang ; Zekui Zhang</i>	
<b>DESIGN OF A HIGH-GAIN AND HIGH APERTURE EFFICIENCY FABRY-PÉROT CAVITY ANTENNA USING A NOVEL PARTIALLY REFLECTING SURFACE</b> .....	129
<i>Peng Xie ; Guangming Wang</i>	
<b>DESIGN OF A CIRCULAR POLARIZATION NEAR-FIELD FOCUSED ANTENNA ARRAY ENHANCED BY DIRECTOR PATCHES</b> .....	132
<i>Hui-Fen Huang ; Jian Zhang</i>	
<b>A DUAL-FEED L-PROBE CIRCULARLY POLARIZED PATCH ANTENNA WITH LOW PROFILE</b> .....	135
<i>Menglong Chen ; Bo Chen ; Xiaowei Yi ; Dao-Dan Deng</i>	
<b>DESIGN OF SUBSTRATE INTEGRATED WAVEGUIDE BASED FILTERING ANTENNAS</b> .....	138
<i>Hui Chu</i>	
<b>A BROADBAND FILTERING PATCH ANTENNA USING PARTIALLY REFLECTIVE SURFACE</b> .....	140
<i>Kai-Ran Xiang ; Fu-Chang Chen</i>	
<b>DUAL-POLARIZED FILTERING ANTENNA FOR BASE STATION APPLICATION</b> .....	143
<i>Chao Feng Ding ; Xiu Yin Zhang ; Zhi Jie Zhang ; Yun Fei Cao ; Lu Gao ; Jun Yang</i>	
<b>DETECTING MICROWAVE ORBITAL ANGULAR MOMENTUM BY SINGLE-SENSOR IMAGING: A COMPUTATIONAL FEASIBILITY STUDY</b> .....	146
<i>Zhansong Lin ; Xiong Wang</i>	
<b>AN INHOMOGENEOUS BACKGROUND MICROWAVE IMAGING ALGORITHM AS APPLIED IN BIO-IMAGING</b> .....	148
<i>Xiuzhu Ye</i>	
<b>ARRAY ELECTROMAGNETIC PROBE WITH THREE-PHASE EXCITATION FOR CFRP INSPECTION</b> .....	151
<i>Na Zhang ; Yu Tao ; Lei Peng ; Chaofeng Ye</i>	
<b>MAGNETICALLY MEDIATED THERMOACOUSTICS: IMAGING AND SENSING</b> .....	154
<i>Hongtao Zhong ; Tingyang Duan ; Fei Gao</i>	

<b>THEORETICAL ANALYSIS IN THZ SURFACE WAVE ISOLATION WITH LOADED IMPEDANCE SURFACE</b> .....	157
<i>Yiming He ; Hao Ke ; Jiayou Xu ; Yong Luo</i>	
<b>PHASELESS MICROWAVE IMAGING BASED ON RANDOM FIELD ILLUMINATION</b> .....	160
<i>Tianyi Zhou</i>	
<b>SUPER-RESOLUTION MICROWAVE IMAGING FOR HIGH CONTRAST TARGETS</b> .....	163
<i>Kuiwen Xu ; Yanqing Chu</i>	
<b>RESEARCH ON ISAR FAR-FIELD IMAGING ALGORITHMS</b> .....	165
<i>Min Zhao ; Xiaofeng Que ; Danyang Yu ; Zaiping Nie</i>	
<b>ADAPTIVE ONE-BIT QUANTIZATION FOR SAR IMAGING</b> .....	168
<i>Hao Han ; Falin Liu ; Zheng Wang ; Yanwei Yin ; Yuanhang Jia</i>	
<b>HIGH-EFFICIENCY DUAL-BAND POWER AMPLIFIER BASED ON HIGH-SELECTIVITY SUSPENDED SUBSTRATE STRIPLINE DUAL-BAND FILTER</b> .....	171
<i>Xiwen Peng ; Zeming Xie</i>	
<b>DESIGN OF MINIATURIZED BANDPASS FILTER USING MODIFIED COAXIAL CAVITY RESONATOR</b> .....	174
<i>Zhi-Chong Zhang ; Jian-Ping Yang ; Qing-Yun Li ; Jing-Xiang Lv</i>	
<b>2.5 TO 5.5 GHZ WILKINSON POWER DIVIDERS BASED ON LC-LADDER EQUIVALENT TRANSMISSION LINE</b> .....	177
<i>Yaoling Tian ; Yue He ; Fengjun Chen ; Kun Huang ; Li Miao</i>	
<b>MICROFABRICATION OF COAXIAL FILTER WITHOUT INTERNAL CONDUCTOR SUPPORT</b> .....	180
<i>Zixian Wu ; Anxue Zhang ; Jianzhong Chen ; Xinru Lu</i>	
<b>A DESIGN OF MINIATURIZED C BAND FILTER BASED ON TAI-CHI RESONATORS</b> .....	183
<i>Xian-Hu Luo ; Xu Cheng ; Jiang-An Han ; Liang Zhang ; Feng-Jun Chen ; Xian-Jin Deng</i>	
<b>AN ULTRACOMPACT BUTTERWORTH LOW-PASS FILTER BASED ON VERTICAL SPIRAL TSV INDUCTOR</b> .....	186
<i>Jin-Wei Pan ; Kai Fu ; Wen-Sheng Zhao ; Kuiwen Xu ; Linxi Dong ; Gaofeng Wang</i>	
<b>PIEZOELECTRIC TRANSDUCER TUNABLE MICROSTRIP BANDPASS FILTER WITH A CAPACITIVE COUPLING</b> .....	189
<i>Liangzu Cao ; Liya Wang ; Junmei Yan ; Lixia Yin</i>	
<b>ULTRA-WIDEBAND OPTICALLY CONTROLLED FREQUENCY SELECTIVE SURFACE</b> .....	192
<i>Hui Gao ; Qiang Zhang</i>	
<b>THE DESIGN AND REALIZATION OF DIGITAL IF PROCESSING SYSTEM OF MICROWAVE MULTIFUNCTIONAL ANALYZER</b> .....	195
<i>Xiaolai Zhang ; Wei Shi</i>	
<b>ANALYSIS OF ELECTRIC FIELD OF AC TRANSMISSION LINE</b> .....	198
<i>Jin Liu ; Huaifang Li ; Song Shi ; Minhong Wei ; Nan Mei ; Xin Wang ; Xiaoyu Wang</i>	
<b>AN EFFICIENT ADE-CN-FDTD METHOD FOR WAVE PROPAGATION IN GENERAL DISPERSIVE MATERIALS</b> .....	201
<i>Wei-Jun Chen ; Shi-Yu Long ; Qi-Wen Liang</i>	
<b>A NOVEL ARRAY ARRANGEMENT AND FEEDING MODE TO ENHANCE THE PERFORMANCE OF THE HALVED VOLUME DUAL-POLARIZED DIPOLE ANTENNA</b> .....	204
<i>He Huang ; Xiaoping Li ; Yanming Liu ; Min Liang ; Bo Zhao</i>	
<b>A NOVEL MINIATURIZED CYLINDRICALLY CONFORMAL E-SHAPED PIFA ANTENNA APPLICATION ON MISSILE</b> .....	207
<i>Liang Yishan ; Zheng Haoying ; Shang Yuanbo ; Xia Longan ; Heng Yan</i>	
<b>GENERATION OF BEAMS WITH ORBITAL ANGULAR MOMENTUM BASED ON 3D PRINTING TECHNIQUE</b> .....	210
<i>Li Cheng ; Fuwei Wu ; Yuanji Li ; Xuyang Zhang</i>	
<b>3D-PRINTED LENS-ANTENNAS WITH BROADBAND STABLE RADIATION PERFORMANCE FOR 5G COMMUNICATION</b> .....	213
<i>Yi-Xuan Zhang ; Yong-Chang Jiao</i>	
<b>A UWB ANTENNA WITH SWITCHABLE NOTCHED STOP BANDS</b> .....	216
<i>Chu-Tian Liu ; Yong-Jiu Zhao ; Zheng He ; Ya-Han Wang</i>	
<b>WIDEBAND CIRCULARLY-POLARIZED DIELECTRIC RESONATOR ANTENNA ARRAY BASED ON SIMPLIFIED SEQUENTIAL-ROTATED FEEDING NETWORK</b> .....	219
<i>Jing-Xuan Wen ; Yi-Xuan Zhang ; Yong-Chang Jiao ; Chuan-Wei Luo</i>	
<b>AN ELECTRICALLY LARGE MICROSTRIP ANTENNA FED BY SICL</b> .....	222
<i>Yunyang Zhang ; Wenquan Cao ; Zuping Qian ; Wenfang Peng</i>	
<b>A LOW-PROFILE DUAL CIRCULARLY POLARIZED RADIAL LINE SLOT ANTENNA</b> .....	225
<i>Xiaowei Yi ; Bo Chen ; Menglong Chen ; Kai-Qi Liu ; Shu Liang</i>	
<b>DESIGN OF A MINIATURIZED DUAL-POLARIZED UWB VIVALDI ANTENNA</b> .....	228
<i>Deng-Hui Li ; Fu-Shun Zhang ; Yi Zhao ; Li-Xin Cao</i>	
<b>A COMPACT DUAL-BAND FILTERING ANTENNA WITH HIGH SELECTIVITY</b> .....	231
<i>Ming-You Xie ; Ze-Ming Xie</i>	
<b>A SURFACE WAVE-BASED ENDFIRE ANTENNA WITH BROADBAND LOW-SCATTERING PERFORMANCE</b> .....	234
<i>You-Feng Cheng ; Wei-Jun Chen ; Ju Feng ; Cheng Liao</i>	
<b>RECTANGULAR CAVITY SLOT ARRAY</b> .....	237
<i>Jing Jian Huang ; Xiao Fa Zhang ; Lin Chen ; Chang Zhu ; Nai Chang Yuan</i>	

<b>PATTERN SYMMETRY OF PLANAR SPIRAL ANTENNA AND IMPROVEMENT</b> .....	240
<i>Jing Jian Huang ; Xi Chen ; Chao Wang ; Nai Chang Yuan</i>	
<b>DESIGN OF SMALL 5.5 GHZ BAND-NOTCHED UWB MONOPOLE ANTENNA</b> .....	243
<i>Yong-Ping Zhang ; Hao-Yu Jin</i>	
<b>A WIDE-BAND COMPACT LORAN-C ACTIVE MAGNETIC ANTENNA</b> .....	246
<i>Dao-Dan Deng ; Bo Chen ; Shu Liang ; Kai-Qi Liu ; Menglong Chen</i>	
<b>SCATTERING CENTERS ANALYSIS VIA SPARSE BAYESIAN LEARNING FOR NON-COHERENT SHORT PULSE RADAR</b> .....	249
<i>Haibo Wang ; Wenhua Huang ; Yue Jiang ; Tao Ba</i>	
<b>FAST GENERATION OF ISAR DECEPTIVE JAMMING SIGNAL BASED ON PHASE MODULATION</b> .....	252
<i>Qingzhan Shi ; Zhiyuan Yang ; Chao Wang ; Quan Wang ; Xiaofa Zhang ; Naichang Yuan</i>	
<b>GAUSSIAN BEAM MODES ANALYSIS FOR OFF-AXIS MIRROR WITH FEED POSITION DISPLACEMENT</b> .....	255
<i>Tianyang Chen ; Xiaodong Chen ; Yiyang Zheng ; Xiaoming Liu ; Junsheng Yu ; Yuan Yao</i>	
<b>A NOVEL METHOD OF VCO OPEN-LOOP LINEARITY CORRECTION TECHNOLOGY FOR FMCW RADAR</b> .....	258
<i>Hao Zhou ; Xinling Ge ; Yugang Li ; Jiawen Sun</i>	
<b>A CIRCULARLY POLARIZED METASURFACE ANTENNA BASED ON HOLOGRAPHIC METHOD</b> .....	261
<i>C. Zhang ; L. Deng ; J. F. Zhu ; S. F. Li ; L. Wang ; W. J. Hong ; L. Liu ; H. J. Wang ; X. X. Wang ; T. Zeng</i>	
<b>2D DOA ESTIMATION OF LFM SOURCES USING FRFT-BASED AND MODE-SPACE-BASED ALGORITHM</b> .....	264
<i>Cui Kaibo ; Zhang Xiaofa ; Chen Xi ; Wang Qingping ; Yuan Naichang</i>	
<b>THERMAL DESIGN OF CHANNELIZED RECEIVER &amp; SIGNAL PROCESSOR IN PASSIVE RADAR SEEKER</b> .....	267
<i>Jia-Lu Wang ; Qiang Wu</i>	
<b>MODULAR DESIGN OF RADIAL WAVEGUIDE POWER COMBINER BASED ON NEW STRUCTURE</b> .....	270
<i>Zhao Shuwei ; Wu Qiang</i>	
<b>A FULL KA-BAND 50W SOLID-STATE POWER AMPLIFIER COMBINER</b> .....	273
<i>Tao Wang ; Yuemin Ning ; Weifeng Zhu</i>	
<b>A COMPACT GAN PULSED POWER AMPLIFIER UTILIZING GAAS MATCHING NETWORKS FOR C-BAND APPLICATION</b> .....	276
<i>Xiaojun Luo ; Shiyong Zhao ; Pan Deng</i>	
<b>COMPACT WIDEBAND BUTLER MATRIX NETWORK USING MICROSTRIP STRUCTURE</b> .....	279
<i>Zewei Lv ; Wei Liu ; Qiulin Huang</i>	
<b>LINEAR CALIBRATION TECHNOLOGY BASED ON BUILD-IN CALIBRATION OF PEAK POWER SENSORS</b> .....	282
<i>Liu Yuanshang</i>	
<b>AN ACTIVE COLD AND HOT NOISE GENERATOR</b> .....	285
<i>Liang Weijun ; Chen He ; Xu Hao</i>	
<b>WIDEBAND DUAL-RESONANT FIXED-BEAM HIGH GAIN PATCH ANTENNA ARRAY</b> .....	288
<i>Yun Shao ; Xiao-Qian Li ; Wen-Jun Lu ; Hong-Bo Zhu</i>	
<b>DESIGN OF A PASSIVE RFID YAGI-UDA SENSOR TAG ANTENNA</b> .....	291
<i>Shenghui Zhi ; Yuan Yao ; Junsheng Yu ; Xiaodong Chen</i>	
<b>IMPROVED DESIGN OF A DUAL-BAND CIRCULARLY POLARIZED SQUARE LOOP ANTENNA UNDER EVEN-MODE RESONANCE</b> .....	294
<i>Wei-Li Zhang ; Dong-Dong Wang ; Lu Xu ; Wen-Jun Lu ; Hong-Bo Zhu</i>	
<b>CHARACTERISTIC MODE ANALYSIS OF A NOVEL WIDEBAND MICROSTRIP PATCH ANTENNA</b> .....	297
<i>Yufan Cao ; Yang Cai ; Zuping Qian ; Pinghui Li ; Zhiyuan Zeng ; Lei Zhu</i>	
<b>A DUAL-BAND ANTENNA WITH DIFFERENT POLARIZATION AND RADIATION PROPERTIES</b> .....	300
<i>Shuai Gao ; Lei Ge</i>	
<b>A CAPACITIVE COUPLED, LOW-PROFILE, WIDE BEAMWIDTH ANTENNA ON UNMANNED PROBE CAR</b> .....	303
<i>Jianjun Deng ; Zuping Qian ; Wenquan Cao</i>	
<b>A WIDEBAND CLOSE-SPACED 5G MIMO ANTENNA WITH MUTUAL COUPLING REDUCTION USING COMBINED DECOUPLING NETWORKS</b> .....	306
<i>Haixin Jiang ; Li-Ming Si ; Gong Cheng ; Xin Lv</i>	
<b>5G ANTENNA DESIGN FOR MOBILE PHONE WITH METAL FRAME</b> .....	309
<i>Guipin Jin ; Wei Wang ; Long Li</i>	
<b>A WIDEBAND POLARIZATION RECONFIGURABLE ANTENNA BASED ON OPTICAL SWITCHES AND C-SHAPED RADIATOR</b> .....	312
<i>Guipin Jin ; Long Li ; Wei Wang</i>	
<b>TOLERANCE ANALYSIS OF REFLECTOR ANTENNA OF SUBMILLIMETER WAVE RADIOMETER</b> .....	315
<i>Wei-Dong Hu ; Lu Wang ; Shi Chen ; Xin Lv ; Leo P. Ligthart</i>	
<b>A NOVEL PATTERN RECONFIGURABLE ANTENNA WITH THE STEPPED-SHAPED STRUCTURE FOR WIFI/WIMAX APPLICATION</b> .....	318
<i>Shi-Min Du ; Yong-Dan Kong</i>	
<b>DESIGN OF A NOVEL DIFFERENTIAL-FED WIDE-BEAM DIELECTRIC RESONATOR ANTENNA</b> .....	321
<i>Shijie Sun ; Yongchang Jiao ; Xuan Zhang ; Yang Gao</i>	
<b>LOW-PROFILE BROADBAND AND COMPACT METASURFACE ANTENNA FOR IMAGING APPLICATIONS</b> .....	324
<i>Zhiming Yi ; Yuanqing Chen ; Lijia Zhu ; Hao Jin ; Guangli Yang</i>	

<b>DESIGN OF A FILTERING DIELECTRIC RESONATOR ANTENNA WITH TWO RADIATION NULLS</b> .....	327
<i>Yang Gao ; Yongchang Jiao ; Shijie Sun ; Xuan Zhang</i>	
<b>A WIDEBAND CIRCULARLY POLARIZED DIRECTIONAL MAGNETOELECTRIC DIPOLE ANTENNA</b> .....	330
<i>Xuan Zhang ; Yongchang Jiao ; Yang Gao ; Shijie Sun ; Yixuan Zhang</i>	
<b>A BROADBAND THREE-FEED CIRCULAR POLARIZED PATCH ANTENNA WITH STUB-LOADED DIFFERENTIAL PHASE SHIFTER</b> .....	333
<i>Changjiang Su ; Xiaoxing Yin</i>	
<b>CALIBRATION OF MUTUAL COUPLING FOR ADAPTIVE ARRAY VIA ELEMENT PATTERN CONSTRUCTION METHOD</b> .....	336
<i>Peiqing Jiang ; Qiulin Huang ; Xiaowei Shi</i>	
<b>RESEARCH ON THIN-MEMBRANE DEPLOYABLE ANTENNA</b> .....	339
<i>Xiao-Qiu Li ; Zhi-Peng Zhou ; Qiang Gao</i>	
<b>QUASI-TIME-INVARIANT RANGE-ANGLE-DECOUPLED BEAMPATTERN SYNTHESIS OF FREQUENCY DIVERSE ARRAYS</b> .....	342
<i>Can Cui ; Wentao Li ; Xiaowei Shi</i>	
<b>ELEMENT PATTERN RECONSTRUCTION IN THE DATA DOMAIN FOR ANTENNA ARRAYS</b> .....	345
<i>Xiumei Shen ; Qiulin Huang ; Xiaowei Shi</i>	
<b>MUTUAL COUPLING CALIBRATION FOR ADAPTIVE ARRAY BASED ON THE MUTUAL COUPLING GRID</b> .....	348
<i>Jianzhao Tian ; Yi Liang ; Qiulin Huang</i>	
<b>A GCPW-FED LENS-INTEGRATED ON-CHIP SINGLE-ENDED SLOT UWB ANTENNA</b> .....	352
<i>Wei He ; Xiong Xiao ; Haidong Qiao ; Dalu Guo ; Xin Lv ; Weihua Yu</i>	
<b>DESIGN OF A MATCHING ATTENUATOR FOR 220GHZ FOLDED-WAVEGUIDE TRAVELING-WAVE TUBE</b> .....	355
<i>Xiaochuan Zou ; Qianzhong Xue ; Xuwei Wang</i>	
<b>COUPLING ANALYSIS OF HIGH POWER PULSE ON THE SATELLITE SOLAR PANEL</b> .....	357
<i>Shiyan Jiao ; Le Xu ; Xiaowei Shi ; Xiaoning Yang ; Zhuo Chen</i>	
<b>A HIGH LINEARITY LOW NOISE AMPLIFIER FOR 5G FRONT-END MODULES</b> .....	360
<i>Muhammad Adil Bashir ; Yiming Yu ; Yunqiu Wu ; Chenxi Zhao ; Kai Kang</i>	
<b>A NOVEL SFSIW MINIATURIZED FILTER WITH TUNABLE BANDWIDTH AND FREQUENCY</b> .....	363
<i>Kaiwei Zuo ; Yongzhong Zhu ; Yicheng Zhang ; Luo Ren ; Si Chen</i>	
<b>A MINIATURIZED ABSORPTIVE FREQUENCY SELECTIVE SURFACE APPLIED TO THE RCS REDUCTION</b> .....	366
<i>Longhua Liu ; Huiqing Zhai ; Sucheng Li ; Kangqiang Chen ; Yilun Chen</i>	
<b>A NEW MINIATURIZED ABSORBER FREQUENCY SELECTIVE SURFACE FOR LOW FREQUENCY WAVE TRANSMISSION AND HIGH FREQUENCY ABSORPTION</b> .....	369
<i>Diwei Hu ; Huiqing Zhai ; Sucheng Li ; Wei Xiong ; Lei Zhang</i>	
<b>HIGH-PERFORMANCE POLARIZATION-CONTROLLED TERAHERTZ SPOOF SURFACE PLASMON POLARITONS METACOUPLER</b> .....	372
<i>Li-Zheng Yin ; Feng-Yuan Han ; Tie-Jun Huang ; Jiang-Yu Liu ; Pu-Kun Liu</i>	
<b>DESIGN OF MULTI-FUNCTION SWITCHED FILTERS MMIC FOR WIDEBAND RECEIVER APPLICATION</b> .....	375
<i>M. L. Liu ; Y. Q. Lin ; X. G. Huang ; S. J. Lu</i>	
<b>DESIGN OF CONTINUOUS DOHERTY POWER AMPLIFIER</b> .....	378
<i>Jia Jie Wu ; Chang Jiang You ; Xiao Xiao Kong ; Xue Kun Du ; Yu Ting Jiang ; Sen Wang</i>	
<b>A BROADBAND DESIGN FOR HIGH-EFFICIENCY POWER AMPLIFIERS</b> .....	381
<i>Jia Jie Wu ; Yu Ting Jiang ; Chang Jiang You ; Yuan Wang Yang</i>	
<b>KA-BAND SINGLE-CHIP GAAS PHEMT TRANSCEIVER MMIC FOR RANGING FMCW RADAR</b> .....	384
<i>Fuqiang Li ; Yonghui Wu</i>	
<b>A BROADBAND SINGLE-POLE SINGLE-THROW SWITCH WITH GROUND-SLOT COUPLING STRUCTURE IN 65 NM BULK CMOS</b> .....	387
<i>Jiang Luo ; Qunfei Han ; Hongchang Shen ; Xing Quan ; Guodong Su</i>	
<b>SIW DUAL-MODE DUAL-BAND BALANCED FILTER WITH GOOD COMMON-MODE SUPPRESSION</b> .....	390
<i>Shuge Wang ; Kang Zhou ; Wei Kang ; Wen Wu</i>	
<b>MULTI-ANGLE AND POLARIZATION INDEPENDENT OSCILLATOR TRANSMISSION RESPONSE SIMULATING ELECTROMAGNETICALLY INDUCED TRANSPARENCY BY METAMATERIALS</b> .....	393
<i>Si-Yuan Liu ; Hong-Xin Zhao</i>	
<b>THE USE OF CONTINUITY CONDITION ON THE COMPOSITE DIELECTRIC-CLOSED CONDUCTOR OBJECTS</b> .....	396
<i>Jinbo Liu ; Yue Lu ; Zengrui Li</i>	
<b>THE DESIGN OF AN ULTRA-WIDEBAND CIRCULARLY POLARIZED ANTIPODAL EXPONENTIAL TAPERED SLOT ANTENNA</b> .....	399
<i>Yanbo Zhang ; Jianshan Liu ; Shengjie Yang ; Yong Liu ; Xin Lv</i>	
<b>A QUASI-MAGNETIC-ELECTRIC CIRCULARLY-POLARIZED ANTENNA WITH WIDE BANDWIDTH AND LOW CROSS-POLARIZATION</b> .....	402
<i>Zhenquan Li ; Juhua Liu ; Yunliang Long</i>	
<b>DESIGN OF ON 24GHZ BULTER MATRIX FOR VEHICLE RADAR</b> .....	405
<i>Run He ; Xin-Huai Wang ; Xiang Shang</i>	

<b>A LOW-PROFILE DUAL-POLARIZED CROSSED DIPOLE ANTENNA ON A SQUARE ANNULAR AMC SURFACE</b> .....	408
<i>Song Han ; Ze-Hong Yan ; Rui He ; Yan-Bo Meng</i>	
<b>WIDEBAND <math>\pm 45^\circ</math> DUAL-POLARIZED MAGNETOELECTRIC DIPOLE ANTENNA WITH STABLE WIDE BEAMWIDTH</b> .....	411
<i>Dongya Ling ; Hao Song ; Guanghua Lu ; Chang Chen ; Lingyun Zhou ; Qingyuan Zhang ; Xiang Zhang</i>	
<b>A COMPACT MINIATURIZED UWB-MIMO ANTENNA WITH WLAN BAND-NOTCHED FUNCTION</b> .....	414
<i>Tong-Shuai Sun ; Jing-Song Hong ; Jun Cheng</i>	
<b>REDUCTION OF MUTUAL COUPLING IN UWB-MIMO ANTENNAS BY USING EBG STRUCTURES BASED ON A T-SHAPED GROUND BRANCH</b> .....	418
<i>Zhi-Jian Chen ; Jing-Song Hong ; Yan Deng</i>	
<b>CONFORMAL SLOT ARRAY BACKED BY CYLINDRICAL CAVITY</b> .....	421
<i>Yueyang Zhang ; Wenrui Xu ; Zhuozhu Chen ; Jianqi Liu ; Xue-Shi Li ; Zhenxin Hu</i>	
<b>MINIATURIZED ULTRA-WIDEBAND VIVALDI ANTENNA FOR MEASUREMENT APPLICATIONS</b> .....	424
<i>Yuan-Yuan Yang ; He Du ; Xiao-Dong Quan ; Yong Li</i>	
<b>IMPROVEMENT OF BOW-TIE ANTENNA FOR GROUND PENETRATING RADAR</b> .....	427
<i>Ke Li ; Tao Dong ; Zhenghuan Xia</i>	
<b>BROADBAND OPTIMIZATION OF REFLECTARRAY ANTENNAS</b> .....	430
<i>Yu Jianfeng ; Cao Jun ; Zhang Xiaogang</i>	
<b>A CIRCULARLY POLARIZED WAVEGUIDE SLOT ANTENNA FOR RANDOM ARRAY APPLICATION</b> .....	433
<i>Qian Chen ; Tao Wu ; Yinglu Wan ; Lei Li ; Mouping Jin</i>	
<b>BROADBAND UHF NEAR-FIELD RFID READER ANTENNA WITH TRIANGULAR CSRR</b> .....	436
<i>Shengli Pang ; Jun Dong ; Jinxin Li ; Xiaotong Qu ; Shuyue Sun</i>	
<b>EFFECTIVE 2-D ANTI-INTERFERENCE REALIZATION IN THE PRESENCE OF MUTUAL COUPLING EFFECT</b> .....	439
<i>Hao Liu ; Peiqing Jiang ; Qiulin Huang ; Xiaowei Shi</i>	
<b>RELIABILITY DESIGN FOR GAOFEN-3 SATELLITE PHASED ARRAY ANTENNA</b> .....	442
<i>Guo Qing ; Zhao Xuhao ; Ren Bo ; Li Shuliang ; Zhang Jinping</i>	
<b>MICROWAVE SENSOR BASED ON COMPLEMENTARY SPIRAL RESONATOR WITH FITTING EQUATION TO EVALUATE DIELECTRIC SUBSTRATES</b> .....	445
<i>Tamveer Ul Haq ; Cunjun Ruan ; Xingyun Zhang ; Shahid Ullah ; Ayesha Kosar Fahad</i>	
<b>HUMAN ACTIVITY CLASSIFICATION METHOD USING A GENERALIZED RECURRENT NEURAL NETWORK</b> .....	448
<i>Tong Mao ; Guoqiang Zhao ; Houjun Sun</i>	
<b>DESIGN OF GESTURE RECOGNITION SYSTEM BASED ON 77GHZ MILLIMETER WAVE RADAR</b> .....	451
<i>Chong Yang Du ; Xin Huai Wang ; Zuan Xing Yuan ; Yin Xu</i>	
<b>ULTRAWIDEBAND TIGHTLY COUPLED DIPOLE ARRAY WITH 70° SCANNING FOR MILLIMETER-WAVE BANDS</b> .....	454
<i>Yanyi Lu ; Shaoqiu Xiao</i>	
<b>MASSIVE MIMO CHANNEL MODELLING FOR INDOOR ENVIRONMENT</b> .....	457
<i>Gang Liu ; Ming Zhang ; Yaming Bo</i>	
<b>A NOVEL WIDEBAND TE<sub>21</sub> MODE COUPLER FOR MONOPLUSE FEED</b> .....	460
<i>Yan-Bo Meng ; Rui He ; Ze-Hong Yan</i>	
<b>DESIGN OF CONTINUOUS CLASS-J POWER AMPLIFIER WITH RECONFIGURABLE BANDWIDTH AND CENTER FREQUENCY</b> .....	463
<i>Yu Ting Jiang ; Chang Jiang You ; Dan Xie ; Xue Kun Du ; Jia Jie Wu ; Minghai Zhong</i>	
<b>A BAND-LIMITED DIGITAL PREDISTORTION METHOD FOR HYBRID MIMO TRANSMITTERS</b> .....	466
<i>Wen Qiao ; Gang Li ; Yikang Zhang ; Hongmin Li ; Falin Liu</i>	
<b>RADAR MODULATION RECOGNITION BASED ON MLP NEURAL NETWORK</b> .....	469
<i>Fang Li ; Yu Wang ; Liangliang Zhao ; Zixian Yang</i>	
<b>DESIGN OF HIGH-GAIN CAVITY-BACKED PLANAR SPIRAL ANTENNA BASED ON ARC-SHAPED METASURFACE</b> .....	472
<i>Jian-Yi Chu ; Lin Peng ; Jing Ma ; Bin Shi ; Yan-Ru Hua ; Zhi-Peng Li ; Xing Jiang ; Si-Min Li</i>	
<b>ENHANCE THE EXCITATION EFFICIENCY OF SPOOF SURFACE PLASMONS THROUGH FABRY-PÉROT RESONANCE</b> .....	475
<i>Tie-Jun Huang ; Li-Zheng Yin ; Jiang-Yu Liu ; Feng-Yuan Han ; Yunhua Tan ; Pu-Kun Liu</i>	
<b>DEEP DISCRIMINATIVE DICTIONARY LEARNING FOR HRRP-BASED GROUND TARGET RECOGNITION</b> .....	478
<i>Yilu Ma ; Yuehua Li ; Sheng Zhang</i>	
<b>A 2-6 GHZ FULLY INTEGRATED SWITCHED FILTER BANK FOR MULTIBAND WIRELESS COMMUNICATION APPLICATIONS</b> .....	481
<i>Qunfei Han ; Jiang Luo ; Hongchang Shen ; Qing Chen ; Junda Qu</i>	
<b>COMPACT CROSS-COUPLED QUARTER-MODE SIW BANDPASS FILTERS WITH DIFFERENT LOCATIONS OF INPUT AND OUTPUT PORTS</b> .....	484
<i>Qing Liu ; Dongfang Zhou ; Dewei Zhang ; Shuxing Wang ; Dalong Lv</i>	
<b>A NOVEL E-PLANE T-JUNCTION POWER DIVIDER WITH ULTRA-WIDEBAND AND HIGH ISOLATION</b> .....	487
<i>Hong Hao Zheng ; Jun Xu ; Zhi Hao Wang</i>	
<b>ULTRA-NARROW-BAND POLARIZATION-SENSITIVE PERFECT ABSORBER ON METAMATERIAL</b> .....	490
<i>Dekai Li ; Yuewu Ma ; Zuojia Jiang ; Yuanhui Shao ; Renxia Ning</i>	



<b>MICROWAVE CSIW FILTER BASED ON THE HIGH ANISOTROPY ELECTRO-OPTIC NEMATIC LIQUID CRYSTAL</b> .....	493
<i>Yupeng Liu ; Di Jiang ; Xiaoyu Li ; Zhen Wang ; Puhang Ran ; Zihao Fu</i>	
<b>ATTENUATION CHARACTERISTIC STUDY OF TERAHERTZ ELECTROMAGNETIC WAVE IN A NONUNIFORM MAGNETIZED PLASMA USING SMM METHOD</b> .....	496
<i>Weizhong Yan ; Xudong Bai</i>	
<b>A FREQUENCY TUNABLE WIDEBAND CIRCULARLY POLARIZED ANTENNA</b> .....	499
<i>Zhiyuan Zhai ; Yi Fan ; Xiongying Liu ; Manos M. Tentzeris</i>	
<b>A LOWER-PROFILE TOP-LOADED ANTENNA FOR AUTOMOTIVE APPLICATION</b> .....	502
<i>Jingru Geng ; Huiping Guo ; Xueguan Liu ; Changrong Liu ; Xinmi Yang</i>	
<b>RECONFIGURABLE TRI-BAND CIRCULARLY POLARIZED ANTENNA FOR GNSS APPLICATIONS</b> .....	505
<i>Jingjing Li ; Huiping Guo ; Changrong Liu ; Xueguan Liu ; Ji Yan</i>	
<b>DESIGN OF TIGHTLY COUPLED PLANAR ULTRAWIDEBAND MODULAR ANTENNA WITH IMPROVED LOW-FREQUENCY GAIN BASED ON AMC STRUCTURE</b> .....	508
<i>Ji Yan ; Xueguan Liu ; Changrong Liu ; Shuting Hu ; Jingjing Li</i>	
<b>A DR-BASED MAGNETIC DIPOLE YAGI ANTENNA</b> .....	511
<i>Zhong-Yu Qian ; Wen-Jian Sun ; Xue-Feng Zhang ; Jian-Xin Chen</i>	
<b>WIDE - BEAM PLANAR END-FIRE CIRCULARLY POLARIZED ANTENNA BASED ON SIW</b> .....	514
<i>Yang Gao ; Zhenghui Xue ; Weiming Li ; Wu Ren</i>	
<b>SHIELDED MONOPOLE ANTENNA FOR GPR APPLICATION</b> .....	517
<i>Huimin Li ; Shufang Liu ; Mengqian Li ; Linna Yang</i>	
<b>CIRCULARLY POLARIZED ANTENNA WITH LOW PROFILE AND HIGH GAIN</b> .....	520
<i>Huang-Long Teng ; Peng Fei Hu ; Bin Jie Hu</i>	
<b>DESIGN OF ROTMAN LENS WITH NON-UNIFORM BEAM PORT DISTRIBUTION</b> .....	523
<i>Run-Liang Xia ; Haisheng Xiang ; Yuchen Yang ; Yinbing Zhang ; Shi-Wei Qu</i>	
<b>A DUAL-BAND BROADBEAM CIRCULARLY POLARIZED ANTENNA FOR GNSS APPLICATIONS</b> .....	526
<i>Zhihong Zhang ; Kerong Xu ; Yeqiang Li ; Jinwen Zhou ; Xiangxiang Li</i>	
<b>COMPACT SIDE-EDGE FRAME PRINTED FOURTEEN-ELEMENT ANTENNA ARRAY FOR TRIPLE-BAND MIMO OPERATIONS IN THE 5G SMARTPHONE</b> .....	529
<i>Hongwei Wang ; Guangli Yang</i>	
<b>A DUAL-POLARIZED MIMO ANTENNA ARRAY WITH HIGH ISOLATION FOR BASE STATIONS</b> .....	532
<i>Y. Y. Zheng ; S. B. Zhang ; W. Wang ; Z. Y. Zhang</i>	
<b>DESIGN OF BROADBAND CIRCULARLY POLARIZED PATCH ANTENNA BASED ON MULTI-FEED METHOD</b> .....	534
<i>Bin Li ; Jinping Zhang ; Ye Deng ; Zhipeng Zhou ; Lei Sun</i>	
<b>CIRCULAR POLARIZATION RECONFIGURABLE PRINTED HELICAL ANTENNA</b> .....	537
<i>Fuheng Zhang ; Guo-Min Yang ; Ya-Qiu Jin</i>	
<b>A WIDEBAND AND COMPACT MONOPOLAR CIRCULAR PATCH ANTENNA</b> .....	540
<i>Shuangqi Cai ; Juhua Liu</i>	
<b>DESIGN OF SUBSTRATE-INTEGRATED SLOT ANTENNAS-IN-PACKAGE BASED ON THE HIGHER ORDER MODE</b> .....	543
<i>En Zhang ; Liang Zhou</i>	
<b>A CIRCULARLY POLARIZED SUBSTRATE INTEGRATED WAVEGUIDE SLOT ARRAY ANTENNA WITH ENHANCED SCANNING RANGE</b> .....	546
<i>Boxin Li ; Hanxian Zhong ; Wenyu Ma ; Wenquan Cao ; Xiaoqin Yang</i>	
<b>RESEARCH ON THE INFLUENCE OF CHANNEL INCONSISTENCY ON ANTENNA ARRAY SPATIAL ADAPTIVE ANTI-JAMMING ALGORITHM</b> .....	549
<i>Wangfan ; Chuanfang Zhang ; Houjun Sun</i>	
<b>THE ANALYTICAL INVESTIGATION FOR THE ELECTROMAGNETIC SCATTERING CHARACTERISTICS OF TYPICAL TARGET IN LOSSY HALF SPACE</b> .....	552
<i>Wentao He ; Kai Li ; Wei Luo ; Haiyan Chen ; Xiaolong Weng</i>	
<b>A NEW SHOOTING AND BOUNCING RAY METHOD BASED ON GAUSSIAN INTEGRALS AND ITS APPLICATION IN THE ELECTRICALLY LARGE OBJECT</b> .....	555
<i>Jincong Huo ; Zhiwei Wu ; Le Xu ; Xiaowei Shi ; Xiaoning Yang ; Zhuo Chen</i>	
<b>WIDEBAND MULTIPLE-BEAMS ANTENNA SYSTEM BASED ON ROTMAN LENS</b> .....	557
<i>Haisheng Xiang ; Yuchen Yang ; Runliang Xia ; Hao Liu ; Xiaopeng Lu</i>	
<b>A COMPACT CONFORMAL DIPOLE ANTENNA WITH IMPROVED GAIN FOR WIRELESS CAPSULE ENDOSCOPE SYSTEMS</b> .....	560
<i>Zhongxin Li ; Yi Fan ; Xiongying Liu ; Manos M. Tentzeris</i>	
<b>A CONTROL CIRCUIT FOR GAN HEMT POWER AMPLIFIERS</b> .....	563
<i>Jia Jie Wu ; Yu Ting Jiang ; Yuan Wang Yang ; Chang Jiang You</i>	
<b>COMPARISON OF RD ALGORITHM AND BP ALGORITHM IN VIDEO-SAR</b> .....	566
<i>Yihui Jin ; Lili Fang</i>	
<b>A 1-BIT SWITCHABLE REFLECTION-TRANSMISSION INTEGRATED CODING METASURFACE</b> .....	569
<i>Liang Wei Wu ; Rui Yuan Wu ; Xin Xin Gao ; Yue Gou ; Hui Feng Ma</i>	
<b>A 670GHZ NON-RESONANT METAMATERIAL POLARIZATION CONVERTER</b> .....	572
<i>Xueqi Yuan ; Meng Zhang ; Xuetian Wang ; Hongmin Gao ; Zhitao Yang</i>	
<b>A NOVEL POWER DIVIDER BASED ON HYBRID CIRCUIT OF SURFACE PLASMON POLARITONS AND SUBSTRATE INTEGRATED WAVEGUIDE</b> .....	575
<i>Xin Xin Gao ; Zheng Xing Wang ; Rui Ting Yan ; Tie Jun Cui</i>	

<b>DESIGN OF HIGH EFFICIENCY TRANSMISSION ANTENNA AT 90 GHZ WITH ALL DIELECTRIC METASURFACE</b> .....	578
<i>Cen Liu ; Xinlong Guo ; Yu Chen ; Mengmeng Li</i>	
<b>A NOVEL PASSIVE CHIPLESS RFID TAG FOR ANGLE SENSOR</b> .....	581
<i>Yunjiong Qin ; Yi Fan ; Xiongying Liu ; Manos M. Tentzeris</i>	
<b>BROADBAND TUNABLE RCS REDUCTION USING A SINGLE-LAYER ACTIVE METASURFACE</b> .....	584
<i>Jianing Yang ; Cheng Huang ; Xiangang Luo</i>	
<b>A PHASED ARRAY COMPOSED OF DIPOLE WITH SEMICIRCULAR RING FOR 5G</b> .....	586
<i>Junwu Qi ; Hong-Xing Zheng ; Mengjun Wang ; Ruipeng Liu ; Can Tang ; Erping Li</i>	
<b>A NOVEL TWO-DIMENSIONAL SCANNING PHASED ARRAY BASED ON PATTERN RECONFIGURABLE ANTENNA</b> .....	589
<i>Ze Yan ; Naibo Zhang ; Guangcun Shan</i>	
<b>DESIGN OF AN ULTRA-WIDEBAND UHF SCANNING PHASED ARRAY WITH END-FIRE BEAMS</b> .....	592
<i>Huan He ; Yikai Chen ; Shiwen Yang</i>	
<b>DEVELOPMENT OF A KU-BAND PHASED ARRAY FEED FOR WIDE FIELD OF VIEW</b> .....	594
<i>Y. Wu ; S. Niu ; B. Du ; T. Yan</i>	
<b>DESIGN OF SELF-COUPPLING ENHANCED RESONATOR IN 0.13-<math>\mu</math>M (BI)-CMOS TECHNOLOGY</b> .....	597
<i>Meriam Bautista ; He Zhu ; Xi Zhu ; Yang Yang</i>	
<b>A WAVEGUIDE BANDPASS FILTER WITH HIGH SELECTIVITY USING SLOT EXCITATION</b> .....	600
<i>Zai-Cheng Guo ; Sai-Wai Wong ; Lei Zhu</i>	
<b>NON-RECIPROCAL 2ND-ORDER BANDPASS FILTER BY USING TIME-MODULATED MICROSTRIP QUARTER-WAVELENGTH RESONATORS</b> .....	603
<i>Xiaohu Wu ; Mahmoud Nafe ; Xiaoguang Liu</i>	
<b>MILLIMETER-WAVE SILICON-BASED MICRO-MACHINED SIW FILTERS DESIGN FOR SYSTEM-IN-PACKAGE</b> .....	606
<i>Zhipeng Li ; Rong Zeng ; Liming Lv ; Ping Wang ; Wei Zhong</i>	
<b>HIGH-GAIN ARRAY-FED REFLECTOR ANTENNA FOR WIRELESS APPLICATIONS</b> .....	609
<i>Y. J. Cheng ; F. Zhao ; P. F. Kou</i>	
<b>A QUASI-OPTICAL SPATIAL POWER COMBINING SYSTEM BASED ON REFLECTARRAY</b> .....	611
<i>Zhenyu Yang ; Hongfu Meng ; Minggang Deng ; Haifeng Cheng ; Wenbin Dou</i>	
<b>A LOW PROFILE BROADBAND CASSEGRAIN REFLECTARRAY</b> .....	614
<i>Wen-Long Guo ; Guang-Ming Wang ; Ke Chen ; Yi-Jun Feng</i>	
<b>LOW-PROFILE PATCH ANTENNAS WITH LOADING OF SHORTING PINS FOR IMPROVED FUNCTIONALITIES (INVITED PAPER)</b> .....	617
<i>Xiao Zhang ; Lei Zhu</i>	
<b>A DIFFERENTIAL-FED RECTANGULAR MICROSTRIP PATCH ANTENNA WITH DUAL-BAND HIGH GAIN UNDER OPERATION OF TM<sub>01</sub> AND TM<sub>03</sub> MODES</b> .....	620
<i>Kai-Dong Hong ; Xiao Zhang ; Guan-Long Huang ; Wei He ; Xiao-Chen Chen ; Tao Yuan</i>	
<b>A WIDEBAND CIRCULARLY POLARIZED CROSS-DIPOLE ANTENNA WITH TWO ASYMMETRIC L-SHAPED STRIPS</b> .....	623
<i>Shu-Min Liao ; Guan-Long Huang ; Wei He ; Xiao-Chen Chen ; Tao Yuan</i>	
<b>LOW PROFILE UNEQUALLY DUAL-FEED CIRCULARLY POLARIZED PATCH ANTENNA WITH A WIDE BEAMWIDTH</b> .....	626
<i>Xiong Sheng ; Jianxing Li ; Huimin Huo ; Juan Chen ; Anxue Zhang</i>	
<b>ON THE CIRCULAR-POLARIZATION OPERATION OF CHINESE-CHARACTER-SHAPED PATCH ANTENNAS</b> .....	629
<i>Kwok L. Chung ; Ruiqi Liu ; Wen Li ; Jiexin Lai ; Botao Feng</i>	
<b>A PLANAR CIRCULAR POLARIZATION RECONFIGURABLE TRAPEZOID MONOPOLE ANTENNA WITH WIDE AXIAL-RATIO BANDWIDTH FOR GNSS</b> .....	632
<i>Yun Fei Cao ; Qi Cai ; Xiu Yin Zhang ; Jun Hui Ou</i>	
<b>AN ELECTRONICALLY TUNABLE LEAKY-WAVE ANTENNA BASED ON GOUBAU TRANSMISSION LINE</b> .....	635
<i>Xiao-Lan Tang ; Qingfeng Zhang ; Yifan Chen ; Amir Khurrun Rashid</i>	
<b>SURFACE WAVEGUIDE LEAKY-WAVE ANTENNA FOR SINGLE-SIDE BEAM SCANNING</b> .....	638
<i>Shangkun Ge ; Xiaolan Tang ; Qingfeng Zhang ; Ross Murch</i>	
<b>A LOW-COST TWO-DIMENSIONAL NEAR-FIELD IMAGING SYSTEM BASED ON A GOUBAU LINE</b> .....	641
<i>Dingfei Ma ; Qingfeng Zhang ; Amir Khurrun Rasahid ; Xiaolan Tang</i>	
<b>COMPACT DIPOLE ANTENNA BASED ON SPOOF SURFACE POLARIZED PLASMON STRUCTURE</b> .....	644
<i>Jiayuan Lu ; Yi Ren ; Cunyue Wei ; Hao Chi Zhang ; Pei Hang He ; Xinxin Gao ; Tie Jun Cui</i>	
<b>CHARACTERISTIC STUDIES ON A NOVEL SYMMETRICAL SPOOF SURFACE PLASMON POLARITONS TRANSMISSION LINE</b> .....	647
<i>Minghong Chen ; Lilei Liu ; Han Wu ; Jian Wang ; Jianing Cai</i>	
<b>A PLASMONIC BANDPASS FILTER BASED ON MEANDER-SLOTTED SUBSTRATE INTEGRATED WAVEGUIDE</b> .....	650
<i>Yao Chen ; Longfang Ye ; Qing Huo Liu</i>	
<b>A SPOOF SURFACE PLASMON POLARITONS-FED PATCH ANTENNA</b> .....	653
<i>Di Cao ; Yujian Li ; Junhong Wang</i>	
<b>COMPACT REJECTION FILTERS BASED ON THE INTERACTION BETWEEN SPOOF SPPS AND LSPPS</b> .....	655
<i>Yue Gou ; Zheng Xing Wang ; Liang Wei Wu ; Hui Feng Ma</i>	

<b>SIDE EXCITED SPOOF LOCALIZED SURFACE PLASMONIC RESONATOR WITH ULTRA-HIGH Q FACTOR</b> .....	658
<i>Hong Zhou Zhao ; Yong Jin Zhou</i>	
<b>PLANAR CROSS TECHNOLOGY OF TRANSMISSION LINES USING SPOOF SURFACE PLASMON POLARITONS</b> .....	661
<i>Pei Hang He ; Ling Yun Niu ; Hao Chi Zhang ; Le Peng Zhang ; Tie Jun Cui</i>	
<b>MULTILAYER METASURFACE SIMULATION IN FDTD USING SURFACE SUSCEPTIBILITY MODEL</b> .....	664
<i>Xiao Jia ; Fan Yang ; Maokun Li ; Shenheng Xu</i>	
<b>DESIGN OF POLARIZATION RECONFIGURABLE ANTENNA USING CHARACTERISTIC MODE</b> .....	666
<i>Ke Li ; Yan Shi ; Long Li</i>	
<b>A DUAL-BAND REFLECTIVE METASURFACE USING NEAR-FIELD FOCUSING AND ZERO-ORDER BESSEL BEAM FOR WIRELESS POWER TRANSFER</b> .....	669
<i>Pei Zhang ; Long Li ; Yongjie Liu</i>	
<b>WIDEBAND LOW FREQUENCY ANTENNA WITH FOLDED FEED L-SLOT CUT PATCH</b> .....	672
<i>Lu Xu ; Yong Jin Zhou</i>	
<b>BAND ABSORPTIVE FREQUENCY SELECTIVE STRUCTURES WITH LOWPASS PERFORMANCE</b> .....	675
<i>Wei Liang Yu ; Guo Qing Luo ; Yu Feng Yu</i>	
<b>HIGH-EFFICIENCY AND ULTRA-BROADBAND ABSORBER BASED ON 3-D METAMATERIAL</b> .....	677
<i>Ji Wenyue ; Wang Guangming ; Cai Tong ; Liu Kaiyue</i>	
<b>A CONTROLLABLE BROADBAND METAMATERIAL ABSORBER BASED ON LOADED LUMPED RESISTORS</b> .....	679
<i>J. Y. Wang ; R. C. Yang ; J. P. Xu ; S. Yuan ; S. Yang</i>	
<b>A BROADBAND METAMATERIAL ABSORBER BASED ON DUAL-LAYERED RESISTIVE SQUARE RING ARRAYS STRUCTURE</b> .....	682
<i>Y. J. Wang ; S. N. Sun ; X. C. Liu ; W. Fang ; X. Y. Xie ; R. X. Wu ; P. Chen</i>	
<b>3-D BAND-ABSORPTIVE FREQUENCY SELECTIVE RASORBER BASED ON STEPPED-IMPEDANCE HYBRID TRANSMISSION/ABSORPTION CHANNELS</b> .....	685
<i>Jian Tong ; Yufeng Yu ; Weiliang Yu ; Linglu Chen ; Zhiqi Huang ; Guo Qing Luo</i>	
<b>AN ABSORPTIVE FREQUENCY SELECTIVE SURFACE WITH WIDEBAND ABSORBING PROPERTIES BASED ON PARALLEL RESONANCE</b> .....	688
<i>Yu Qiang ; Dongfang Zhou ; Qikun Liu ; Zhenning Yao ; Xiangzhi Li</i>	
<b>DYNAMICALLY SUBSTRATE INTEGRATED WAVEGUIDE PROGRAMMABLE METASURFACE FOR SAR IMAGING</b> .....	691
<i>Shangyang Li ; Feng Xu</i>	
<b>A HIGH-EFFICIENCY AND WIDEBAND TUNABLE CONVERTER BASED ON A PETAL METASURFACE</b> .....	694
<i>Fengxia Li ; Haiyan Chen ; Yang Zhou ; Linbo Zhang ; Haipeng Lu ; Longjiang Deng</i>	
<b>ALL-DIELECTRIC CODING METASURFACES FOR ELECTROMAGNETIC WAVE MANIPULATION</b> .....	697
<i>Linda Shao ; Weiren Zhu</i>	
<b>INVESTIGATION INTO FREQUENCY SELECTIVE METASURFACE WITH SPIRAL STRUCTURE</b> .....	700
<i>Songyang Liu ; Guang Hua</i>	
<b>ACTIVE SENSOR BASED ON METAL-INSULATOR-METAL RING METAMATERIAL</b> .....	703
<i>Qiao Yu Li ; Yong Jin Zhou</i>	
<b>DESIGN OF ELECTROMAGNETIC INDUCED TRANSPARENCY LIKE PLASMONIC FANO METAMATERIALS PROMISING FOR THZ SENSOR</b> .....	706
<i>Kanglong Chen ; Cunjun Ruan ; Shahid Ullah</i>	
<b>DESIGN OF RECONFIGURABLE ULTRA-WIDEBAND POLARIZATION CONVERSION METASURFACE</b> .....	709
<i>Jianghao Tian ; Xiangyu Cao ; Jun Gao</i>	
<b>NEAR-FIELD METASURFACES: SUBDIFFRACTION FOCUSING OF TERAHERTZ WAVES</b> .....	712
<i>Feng-Yuan Han ; Li-Zheng Yin ; Jiang-Yu Liu ; Tie-Jun Huang ; Pu-Kun Liu</i>	
<b>A 2.4 GHZ PASSIVE IQ MIXER USING PHASE ADJUSTABLE POLYPHASE FILTER</b> .....	715
<i>Shoutian Sun ; Zhiqing Liu ; Zhilin Chen ; Yiming Yu ; Huihua Liu ; Chenxi Zhao ; Yunqiu Wu ; Kai Kang</i>	
<b>A COMPACT KA-BAND 35W POWER-COMBINING AMPLIFIER</b> .....	718
<i>Peng Liu ; Fei Shi ; Yongshuai Wang ; Chuan Sheng ; Li Kang</i>	
<b>A LOW PHASE NOISE X-BAND QUADRATURE VCO BY USING TRANSCONDUCTANCE LINEARIZATION TECHNIQUE</b> .....	721
<i>Qing Xia ; Cheng Cao ; Jiangfan Liu ; Tao Tan ; Xiuping Li</i>	
<b>A 15-27 GHZ LOW CONVERSION LOSS AND HIGH ISOLATION RESISTIVE RING MIXER FOR DIRECT CONVERSION RECEIVER</b> .....	724
<i>Pengxue Liu ; Tianjun Wu ; Zhilin Chen ; Yiming Yu ; Chenxi Zhao ; Huihua Liu ; Yunqiu Wu ; Kai Kang</i>	
<b>SILICON-BASED INTEGRATED CIRCUITS FOR TERAHERTZ FUNDAMENTAL TRANSCEIVERS</b> .....	727
<i>Zheng Wang</i>	
<b>A 300-GHZ INJECTION-LOCKING COUPLED TERAHERTZ VOLTAGE-CONTROLLED OSCILLATOR IN 40-NM CMOS PROCESS</b> .....	730
<i>Lulu Yao ; Qin Li</i>	
<b>A 259.5-GHZ VARACTOR-FREE VCO IN 0.13-<math>\mu</math>M SIGE BICMOS TECHNOLOGY</b> .....	733
<i>Xun Sun ; Qin Li</i>	
<b>A LOW NOISE SELF-MIXING-VCO BASED ON COUPLED CLASS-F<sub>2</sub> OSCILLATORS</b> .....	736
<i>Yu Peng ; Jingzhi Zhang ; Wen Tan ; Zhao Xing ; Yiming Yu ; Huihua Liu ; Kai Kang</i>	
<b>A HIGH GAIN CMOS LNA FOR KA-BAND COMMUNICATION SYSTEM</b> .....	739
<i>Shengjia Liao ; Zhengdong Jiang ; Yiming Yu ; Chenxi Zhao ; Hongyan Tang ; Huihua Liu ; Yunqiu Wu ; Kai Kang</i>	

<b>A HIGH EFFICIENCY 0.2THZ DOUBLER</b> .....	742
<i>Xiaolin Lv ; Jingyun Ouyang ; Zhen Zhou ; Yipeng Xu ; Bo Zhang</i>	
<b>A VECTOR ROTATION-BASED NONLINEAR SUPPORT VECTOR REGRESSION MODEL FOR ENVELOPE TRACKING RF POWER AMPLIFIERS</b> .....	745
<i>Guangyu Hu ; Xiao-Wei Zhu ; Jing Xia ; Chao Yu ; Yuhai Shi</i>	
<b>DESIGN OF 26-40 GHZ 17 W GAN-BASED BALANCED POWER AMPLIFIER MMIC</b> .....	748
<i>Hong-Qi Tao ; Bin Zhang ; Qiang Zhou ; Jun-Da Yan</i>	
<b>DUAL-BAND POWER DIVIDER USING STUB-LOADED QUAD-MODE RESONATOR</b> .....	751
<i>Huanhuan Lv ; Qiulin Huang ; Xiaowei Shi</i>	
<b>VHF DISCRETE-TUNED FILTERS WITH CONSTANT INSERTION LOSS AND ABSOLUTE BANDWIDTH</b> .....	754
<i>Zhi-Yuan Zhao ; Guo-Qin Kang</i>	
<b>MINIATURIZED AND INTEGRATED MULTICHANNEL INTERFACE NETWORK FOR ACTIVE ANTENNA</b> .....	757
<i>Wang Hui</i>	
<b>FORMULA DERIVATION OF CHARACTERISTIC IMPEDANCE OF SUBSTRATE INTEGRATED COAXIAL LINE</b> .....	761
<i>Ke-Yu Dong ; Xiao-Chun Li ; Ken Ning ; Jun-Fa Mao</i>	
<b>SIMULATION ANALYSIS OF ANSYS HFSS AND CST MICROWAVE STUDIO FOR FREQUENCY SELECTIVE SURFACE</b> .....	764
<i>Kang Luo ; Song-Hu Ge ; Lei Zhang ; Hong-Bo Liu ; Jin-Ling Xing</i>	
<b>RESEARCH ON HIGH-ORDER FDTD ALGORITHM FOR THREE-DIMENSIONAL TARGETS</b> .....	767
<i>Mo Zhao ; Wei Wu ; Shiyao Jiao ; Le Xu</i>	
<b>A CPW-FED PATCH ANTENNA WITH LOW PROFILE AND BANDWIDTH ENHANCEMENT</b> .....	770
<i>Chengwei Chu ; Yanyuan Zhu ; Jianpeng Wang</i>	
<b>DESIGN OF A COMPACT W-BAND PLANAR DIPOLE ANTENNA ON A SINGLE SILICON SUBSTRATE</b> .....	773
<i>Ye Deng ; Fuguo Zhu ; Bin Li ; Jinping Zhang ; Zhipeng Zhou</i>	
<b>DESIGN OF A MINIATURIZATION TRI-BAND SLOT ANTENNA FOR WLAN AND WIMAX APPLICATION</b> .....	776
<i>Bin Gao ; Hong-Xing Zheng ; Ruipeng Liu ; Mengjun Wang</i>	
<b>A FREQUENCY RECONFIGURABLE SLOT ANTENNA BACKED BY THE SUBSTRATE INTEGRATED WAVEGUIDE CAVITY FOR 5G APPLICATIONS</b> .....	779
<i>Zi-Miao Xu ; Yi-Wen Wu ; Ming-Cui Tao ; Zhang-Cheng Hao</i>	
<b>A NOVEL COMPACT UWB ANTENNA WITH RADIATION PATTERN DIVERSITY</b> .....	782
<i>Ziwei Ying ; Junhong Wang ; Xingxing Jiao</i>	
<b>IN-BAND AND OUT-OF-BAND RCS REDUCTION OF A PATCH ANTENNA USING ANISOTROPIC UNIT CELL</b> .....	785
<i>Mustafa K. Taher Al-Nuaimi ; Yejun He ; Wei Hong</i>	
<b>RESEARCH ON THE SECANT SQUARED BEAMFORMING ANTENNA FOR BUILDING COVERAGE</b> .....	788
<i>Yujie Ren ; Xiuzhen Luan ; Zhigang Wang ; Kejun Tan</i>	
<b>COMPACT PLANAR INVERTED-F ANTENNA BUILT IN GAP FOR MODULAR PHONE WITH METAL HOUSING</b> .....	791
<i>Zhixi Liang ; Zhipeng Liang ; Yuanxin Li ; Yunliang Long</i>	
<b>DESIGN OF A COMPACT WIDEBAND HORN FEED FOR MULTI-BEAM LENS ANTENNA</b> .....	794
<i>Changsheng Wang ; Qinglong Kong ; Qingfeng Xu ; Xiangxiang Li ; Shu Wang ; Chongsong Duan</i>	
<b>DESIGN OF A MULTIMODE CORRUGATED HORN FOR SINGLE OFFSET REFLECTOR ANTENNA</b> .....	797
<i>Bang-Cai Zhu ; Yu-Ying Zhao ; Rui He ; Ze-Hong Yan</i>	
<b>CROSSED DIPOLE ANTENNA WITH REFLECTOR FOR WIDE-BEAM AND WIDEBAND CIRCULARLY POLARIZED RADIATION</b> .....	800
<i>Xing-Yue Pu ; Zhen-Wen Gui ; Zhen-Hai Liu</i>	
<b>A LOW-PROFILE STACKED CP PATCH ANTENNA WITH HIGH GAIN AND ENHANCED AXIAL-RATIO BANDWIDTH</b> .....	803
<i>Zhong-Xun Liu ; Lei Zhu ; Xiao Zhang ; Neng-Wu Liu</i>	
<b>28/38 GHZ SINGLE-FEED STACKED PATCH ANTENNA FOR 5G COMMUNICATION</b> .....	806
<i>Binlong Shi ; Changjiang Deng</i>	
<b>A COMPACT OCTA-BAND PLANAR ANTENNA FOR LTE MOBILE PHONE</b> .....	809
<i>Di Liu ; Changjiang Deng</i>	
<b>MINIATURE TRI-POLARIZED ANTENNA FOR POLARIZATION SENSITIVE ARRAYS</b> .....	812
<i>Ke Pang ; Zhipeng Liu ; Yong Liu ; Xin Lv</i>	
<b>A MODIFIED ANTIPODAL VIVALDI ANTENNA FOR ULTRA-WIDEBAND APPLICATIONS</b> .....	815
<i>Zejiang Chen ; Jianxun Su ; Zengrui Li</i>	
<b>EVALUATION OF EFFICIENT DIELECTRIC CONSTANTS OF CHAFF CORRIDOR IN SUBMILLIMETER BAND</b> .....	818
<i>Zuo Yanchun ; Li Chunyong ; Guo Lixin ; Liu Songhua</i>	
<b>FEATURE TUNABLE TRIHEDRAL CORNER REFLECTOR BASED ON ACTIVE FREQUENCY SELECTIVE SURFACE</b> .....	821
<i>Lei Liu ; Dejun Feng ; Junjie Wang ; Kunpeng Song ; Longfei Shi</i>	
<b>WIDEBAND FAR-FIELD SUPER-RESOLUTION FOCUSING BASED ON COMPOSITE METALENS</b> .....	824
<i>Qiang Gao ; Xiao-Qiu Li</i>	
<b>NOVEL DESIGN OF MICROWAVE SWITCH REDUNDANCY RING IN COMMUNICATION SATELLITE</b> .....	827
<i>Qi Nan ; Wang Chen ; Zhang Rui-Qi ; Li Sheng-Xian ; Zhou Ying</i>	

<b>DESIGN AND MEASUREMENT OF BIFOCAL LENS ANTENNA FOR WIDE ANGLE BEAM SCANNING SYSTEM</b> .....	830
<i>C. J. Hao ; P. P. Hou ; S. C. Li ; Q. Jia</i>	
<b>TERAHERTZ HIGH-GAIN OPEN RESONATOR ANTENNA</b> .....	833
<i>Yuanlong Li ; Kwai-Man Luk</i>	
<b>DESIGN OF A KU-BAND HEMT GAAS SINGLE-ENDED RESISTIVE MIXER</b> .....	836
<i>Yiwen Ji ; Xiang Zhang ; Yuan Feng ; Jianyi Zhou ; Houxing Zhou</i>	
<b>A NOVEL METHOD OF ADAPTIVE POLARIZATION CANCELLER FOR INTERFERENCE CANCELLATION</b> .....	839
<i>Zixian Yang ; Fazong Li ; Fang Li ; Xiaowei Yang</i>	
<b>3D SMITH CHART'S EXTENSIONS AND EXPANDING</b> .....	842
<i>Xiao Yang ; Xuchun Zhang</i>	
<b>A LOW-PROFILE BANDPASS FREQUENCY SELECTIVE SURFACE WITH HIGHLY SELECTIVE RESPONSE</b> .....	845
<i>Ruixiang Liao ; Sai-Wai Wong ; Fuchang Chen ; Long Zhang ; Lei Zhu ; Yejun He</i>	
<b>MM-WAVE LOW-PROFILE WIDEBAND ANTENNA ARRAY USING LOW-TEMPERATURE CO-FIRED CERAMICS (LTCC) TECHNIQUE</b> .....	848
<i>Jianfeng Zhu ; Yang Yang ; Chenhao Chu ; Shufang Li ; Shaowei Liao ; Quan Xue</i>	
<b>SPOOF SURFACE PLASMON POLARITONS-FED LEAKY-WAVE OPEN-LOOP ANTENNA ARRAY</b> .....	850
<i>Di Cao ; Yujian Li ; Junhong Wang</i>	
<b>BROADBAND MICROWAVE ABSORBER BY DIRECT DRAWING METAMATERIAL ON PAPER</b> .....	853
<i>Shuyang Hao ; Yujie Zhang ; Ruiwen Zhu ; Kaiyue Zhu ; Guangxu Qian ; Junming Zhao ; Yijun Feng</i>	
<b>THERMOACOUSTIC IMAGING OF BREAST CANCER: A PHANTOM STUDY</b> .....	856
<i>Rui Zhao ; Zhu Zheng ; Xue Wang ; Lin Huang ; Huabei Jiang</i>	
<b>STUDY ON PROPAGATION CHARACTERISTICS OF FLYING ELECTROMAGNETIC TOROID PULSES IN NON-IDEAL FREE SPACE</b> .....	859
<i>Mo-Ran Zhang ; Ren Wang ; Sheng Liu ; Bing-Zhong Wang</i>	
<b>WIDEBAND SUBSTRATE-INTEGRATED-WAVEGUIDE-FED MAGNETO-ELECTRIC DIPOLE ARRAY ANTENNA</b> .....	862
<i>Yangzi Wang ; Meiling Li ; Haixia Liu ; Yan Shi ; Long Li</i>	
<b>DESIGN OF Q-BAND TRANSCEIVER FRONT-END MODULE</b> .....	865
<i>Neng-Yuan Zhong ; Xiao-Wei Zhu ; Hao-Tian Li ; Xiang Wang ; Hailiang Feng</i>	
<b>GENERATION OF BROADBAND QUASI-BESSEL BEAMS IN SUB-THZ REGIME AND APPLICATIONS IN IMAGING</b> .....	868
<i>Dajun Zhang ; Beng Chen ; Zhongling Ba ; Juncheng Cao ; Xiong Wang</i>	
<b>TIME-EFFICIENT THERMOACOUSTIC IMAGING WITH HIGH RESOLUTION FOR A LARGE SAMPLE: A SIMULATION STUDY</b> .....	871
<i>Baosheng Wang ; Yifei Sun ; Chenzhe Li ; Xiong Wang</i>	
<b>A DUAL BAND NOTCH UWB ANTENNA USING SPIRAL CORNER FEED ELECTROMAGNETIC BAND GAP STRUCTURES</b> .....	873
<i>Cheng Peng ; Hong-Li Peng ; Jin Wang ; Jun-Fa Mao</i>	
<b>DESIGN OF LOW-LOSS SINGLE-POLE SINGLE-THROW AND SINGLE-POLE DOUBLE-THROW FILTERING SWITCHES USING COAXIAL RESONATORS</b> .....	876
<i>Hui-Yang Li ; Jin-Xu Xu ; Xiu Yin Zhang ; Yang Yang</i>	
<b>A SIW-FED PARASITIC CAVITY RESONATOR ANTENNA IN LTCC TECHNOLOGY</b> .....	879
<i>Yaowei Hou ; Zijian Shao ; Junfa Mao</i>	
<b>FABRICATION OF 50 NM METALLIC LINES FOR HIGH FREQUENCY DEVICES</b> .....	881
<i>Xiaoyi Liu ; Biyan Liao ; Sheng Gao ; Hong Wang</i>	
<b>A KA-BAND 3D PRINTED HORN ANTENNA ARRAY</b> .....	884
<i>Yujian Li</i>	
<b>A KA-BAND 3D PRINTED MAGNETO-ELECTRIC DIPOLE ANTENNA ARRAY</b> .....	887
<i>Fanqi Sun ; Yujian Li ; Junhong Wang</i>	
<b>A LOW-PROFILE WIDEBAND SINGLE-LAYER ANTENNA ARRAY FOR 28-GHZ APPLICATIONS</b> .....	890
<i>Chen Ding ; Kwai-Man Luk</i>	
<b>GENERATION OF RADIATION NULL FOR PERIODIC LEAKY-WAVE ANTENNAS</b> .....	893
<i>Zheng Li ; Jianlai Wang ; Xin Lv ; Dawei Li ; Junhong Wang</i>	
<b>A COMPACT AND WIDEBAND MICROSTRIP ANTENNA DESIGN WITH SWITCHABLE PATTERN BETWEEN CONICAL AND BROADSIDE BEAM</b> .....	895
<i>Zhang Pu ; Zhang Zhan</i>	
<b>POLARIZATION RESPONSES OF TERAHERTZ DIELECTRIC ROD ANTENNA ARRAYS</b> .....	898
<i>Withawat Withayachumnankul ; Masayuki Fujita ; Tadao Nagatsuma</i>	
<b>OVERVIEW OF MILLIMETER-WAVE ON-CHIP AND OFF-CHIP BANDPASS FILTER DESIGNS</b> .....	901
<i>Yang Yang ; Xi Zhu</i>	
<b>A 30 GHZ PATTERN RECONFIGURABLE ANTENNA USING PHASE-CHANGE MATERIAL</b> .....	903
<i>Hang Wong ; Qing-Yi Guo ; Aurelian Crunteanu ; Laure Huitema</i>	
<b>MILLIMETER-WAVE END-FIRE CIRCULAR-POLARIZED ME DIPOLE ANTENNA</b> .....	906
<i>Qing-Feng Fu ; Zhi-Hong Tu ; Zheng Gan</i>	
<b>WAVEGUIDE SWITCHABLE BANDSTOP AND BANDPASS FILTERS USING RF MEMS SWITCHES</b> .....	909
<i>K. Y. Chan ; R. Ramer</i>	

<b>DEVELOPMENT OF OMNIDIRECTIONAL CP ANTENNAS AND ARRAYS (INVITED)</b> .....	912
<i>Wei Lin ; Richard W. Ziolkowski</i>	
<b>CIRCULARLY POLARIZED PATCH ANTENNA WITH MINIATURIZED QUARTER-MODE SLOTTED SIW CAVITY</b> .....	914
<i>Shengnan Zhao ; Yuandan Dong</i>	
<b>A COMPACT DUAL-BAND CIRCULARLY-POLARIZED ANTENNA WITH WIDE AXIAL-RATIO BEAMWIDTH</b> .....	917
<i>Zeng-Pei Zhong ; Guan-Long Huang ; Wei He ; Xiao-Chen Chen ; Tao Yuan</i>	
<b>INVESTIGATION OF AN END-FIRE CIRCULARLY POLARIZED ANTENNA BASED ON NORMAL-MODE HELIX</b> .....	920
<i>Jingyan Yang ; Zhuozhu Chen ; Jianqi Liu ; Xue-Shi Li ; Zhenxin Hu</i>	
<b>A CIRCULARLY POLARIZED SHAPED BEAM ANTENNA WITH ISOFLUX RADIATION PATTERN</b> .....	923
<i>Xue Ren ; Hang Wong</i>	
<b>A CIRCULARLY POLARIZED LEAKY ANTENNA BASED ON SPOOF SURFACE PLASMON POLARITONS</b> .....	925
<i>Xian Wang ; Zheng Li ; Liu Liu ; Junhong Wang</i>	
<b>A DUAL-POLARIZED MICROSTRIP ANTENNA WITH 2D BEAM-SCANNING CAPABILITY (INVITED PAPER)</b> .....	927
<i>Yejun He ; Yuhang Sun ; Sai-Wai Wong ; Wei He ; Long Zhang</i>	
<b>DESIGN AND EXPERIMENTAL DEMONSTRATION OF COMPACT POLARIZATION RECONFIGURABLE ANTENNAS</b> .....	930
<i>Ming-Chun Tang ; Zhentian Wu ; Dajiang Li ; Richard W. Ziolkowski</i>	
<b>SABRE-LIKE OMNIDIRECTIONAL DUAL-POLARIZED ANTENNAS FOR LOW WIND DRAG APPLICATIONS</b> .....	933
<i>Peiqin Liu ; Xuan Wang ; Zhijun Zhang ; Yue Li</i>	
<b>A DUAL-POLARIZED DUAL-OAM-MODE MULTIPLEXED ANTENNA SYSTEM</b> .....	935
<i>Zixiao Zhang ; Liangqi Gui ; Lixing Liu ; Han Chen ; Dandan Liu ; Ke Chen ; Liang Lang</i>	
<b>CIRCULARLY POLARIZED RECONFIGURABLE PATCH ANTENNA WITH AN ANNULAR SLOT ON THE GROUND</b> .....	938
<i>Qi-Cheng Ye ; Jia-Lin Li ; Shan-Shan Gao</i>	
<b>A DUAL LINEARLY POLARIZED ANTENNA BASED ON TURNSTILE OMT FOR RCS MEASUREMENT</b> .....	941
<i>Yu Hai-Yang ; Yu Junsheng ; Yao Yuan ; Qi Limei ; Chen Zhijiao ; Liu Xiaoming ; Chen Xiaodong</i>	
<b>BROADBAND AND HIGH-GAIN MILLIMETER-WAVE AND TERAHERTZ ANTENNA ARRAYS</b> .....	944
<i>Xiuping Li ; Jun Xiao ; Zihang Qi ; Hua Zhu</i>	
<b>AN S-SHAPED SIMPLE CIRCULAR POLARIZED (CP) ON-CHIPPED MICROSTRIP ANTENNA FOR THZ COMMUNICATION</b> .....	947
<i>Shahid Ullah ; Cunjun Ruan ; Tanveer Ul Haq ; Muhammad Shahzad Sadiq ; Ayesha Kosar Fahad</i>	
<b>BANDWIDTH ENHANCEMENT FOR TRANSMISSIVE LINEAR TO CIRCULAR POLARIZATION CONVERTERS USING DIRECT COUPLING BETWEEN METASURFACES</b> .....	950
<i>Ayesha Kosar Fahad ; Ruan Cunjun ; Tanveer Ul Haq ; Shahid Ullah</i>	
<b>ULTRA-WIDEBAND TERAHERTZ ANTENNA WITH CAPACITIVE PLATES FOR IMPROVED IMPEDANCE MATCHING</b> .....	953
<i>Miguel Lansdorf ; Cunjun Ruan ; Shahid Ullah</i>	
<b>A 77GHZ MINIATURIZED MICROSTRIP ANTENNA ARRAY FOR AUTOMOTIVE RADAR</b> .....	956
<i>Xiang Shang ; Fu-Shun Zhang ; Run He ; Han-Jing Zhang</i>	
<b>DUAL POLARIZED RECTENNA AND ARRAY AT X-BAND WITH HIGH-EFFICIENCY</b> .....	959
<i>Lin Li ; Jinxin Du ; Xue-Xia Yang</i>	
<b>WAVEFORM-DISTANCE BASED DESIGN OF 5.8-GHZ SELF-SYNCHRONOUS RF-DC RECTIFIER THROUGH MICROSTRIP-LINE COUPLER (INVITED PAPER)</b> .....	962
<i>Fei You ; Ying Wang ; Shi-Wei Dong ; Xumin Yu ; Chuan Li</i>	
<b>EQUIVALENT MAGNETIC DIPOLE MATRIX RECONSTRUCTION METHOD BASED ON DEEP LEARNING FOR MAGNITUDE-ONLY NEAR-FIELD SCANNING</b> .....	965
<i>Hanzhi Ma ; Bohua Chen ; Ran Hao ; Er-Ping Li</i>	
<b>A SUMMARY OF ARTIFICIAL NEURAL NETWORKS ON ELECTROMAGNETIC INTERFERENCE DIAGNOSIS</b> .....	968
<i>X. C. Wei ; Y. F. Shu ; Z. K. Hu ; Y. H. Zhong ; Y. W. Wang</i>	
<b>AN AUTOMATED APPROACH FOR PIXELATED ANTENNA TOPOLOGY DESIGN INCORPORATING MULTI-OBJECTIVE OPTIMIZATION ALGORITHMS</b> .....	971
<i>Yingjuan Li ; Jian Dong ; Shan Wang ; Yuanchao Wu ; Bing Xiong ; Qingxia Li ; Kemeng Wang ; Yuzhen Zhang</i>	
<b>A TUNING METHOD FOR TRIPLE-STUB TUNER USING KNOWLEDGE-BASED SURROGATE MODEL</b> .....	974
<i>Yu Kuang ; Liangkai Zhou ; Song Li ; Xiaolin Fan ; Qingsha S. Cheng</i>	
<b>DIFFERENTIAL EVOLUTION OPTIMIZATION ALGORITHM FOR ANTENNA DESIGNS WITH MIXED DISCRETE-CONTINUOUS VARIABLES</b> .....	977
<i>S. Y. Zheng ; B. J. Xiang ; X. Y. Zhang ; J. Zhang</i>	
<b>DESIGN OF PATCH ANTENNAS WITH SYMMETRY BY A HYBRID TOPOLOGY OPTIMIZATION METHOD</b> .....	980
<i>Xue-Song Yang ; Shun-Hui Zhu ; Jian Wang ; Bing-Zhong Wang</i>	
<b>A PLANAR WIDE-ANGLE SCANNING PHASED ARRAY WITH BROADBAND RCS REDUCTION (INVITED PAPER)</b> .....	983
<i>Xiao Ding ; You-Feng Cheng ; Wei Shao ; Bing-Zhong Wang</i>	

<b>MULTIOBJECTIVE OPTIMIZATION OF MICROWAVE CIRCUITS WITH MANY STRUCTURAL PARAMETERS AND OBJECTIVES</b> .....	985
<i>Dawei Ding ; Xiuyin Zhang ; Jun Zhang ; Yunfei Cao ; Jin Liang Bai ; Jun Yang</i>	
<b>TIME REVERSAL ELECTROMAGNETIC CHANNEL MODELING BY GA-ANN</b> .....	988
<i>Lin Yuan ; Xue-Song Yang</i>	
<b>WIDEBAND BALANCED BANDPASS FILTERS WITH INTRINSIC CM SUPPRESSION VIA SLOTLINE MMR</b> .....	991
<i>Xin Guo ; Lei Zhu ; Wen Wu</i>	
<b>MINIATURIZED ON-CHIP LOWPASS FILTERS WITH WIDE STOPBAND AND SHARP ROLL-OFF</b> .....	994
<i>Xian-Hu Luo ; Xu Cheng ; Jiang-An Han ; Liang Zhang ; Xian-Jing Deng</i>	
<b>SUBSTRATE INTEGRATED WAVEGUIDE QUASI-ELLIPTIC MILLIMETER WAVE FILTER</b> .....	997
<i>Yu Guo ; Yang Wang ; Jinghui Zhang ; Haodong Wu</i>	
<b>COMPACT DUAL-BAND AND TRI-BAND TUNABLE BANDPASS FILTERS BASED ON SEMICIRCULAR SUBSTRATE INTEGRATED WAVEGUIDE</b> .....	1000
<i>Xian Wang ; Dewei Zhang ; Qing Liu ; Yi Zhang ; Jiuhui Sun</i>	
<b>A WIDEBAND BALANCED BANDPASS FILTER WITH DM TRANSMISSION ZEROS USING PARTIAL ELECTRIC/MAGNETIC WALLS</b> .....	1003
<i>Hao Li ; Xin Guo ; Wen Wu</i>	
<b>FREQUENCY AND TRANSMISSION ZEROS TUNABLE FILTER WITH CONSTANT BANDWIDTH</b> .....	1006
<i>Yicheng Zhang ; Yongzhong Zhu ; Zhihao Meng ; Kaiwei Zuo ; Xiaofei Zhou</i>	
<b>COMPACT HAIRPIN BANDPASS FILTER WITH SILICON-BASED INTEGRATED PASSIVE DEVICE TECHNOLOGY FOR KA-BAND APPLICATION</b> .....	1009
<i>Yu Ban ; Jie Liu</i>	
<b>INTEGRATED SUBSTRATE GAP WAVEGUIDE FOR 5G MICROWAVE AND MILLIMETER-WAVE COMPONENTS</b> .....	1012
<i>Dongya Shen ; Ke Wang ; Xiupu Zhang ; Jianpei Chen ; Liangjie Lin ; Dandan You ; Zhidong Ruan</i>	
<b>TRIPLE BEAM DESIGN OF A NOVEL RADIAL GAP WAVEGUIDE SLOT ANTENNA ARRAY</b> .....	1015
<i>Jing Mu ; Guo Dong Bai ; Lei Bao ; Tie Jun Cui</i>	
<b>LEAKY WAVE ANTENNA FOR FIXED-FREQUENCY BEAM STEERING BASED ON SUBSTRATE INTEGRATED WAVEGUIDE</b> .....	1018
<i>Xiaowen Li ; Junhong Wang</i>	
<b>DESIGN OF AN OPEN-ENDED WAVEGUIDE ARRAY WITH A PLANE RADOME</b> .....	1021
<i>Yufeng Fang ; Zhanbo Lu ; Xuequan Yan</i>	
<b>DESIGN AND ANALYSIS OF MOBILE PHONE ANTENNA SYSTEM WITH INTEGRATION OF LTE 4G, SUB-6G AND MILLIMETER WAVE 5G TECHNOLOGIES</b> .....	1024
<i>Guangli Yang</i>	
<b>AUTOMATED TOPOLOGY OPTIMIZATION OF HIGH-ISOLATION MIMO DESIGN USING IMPROVED MOEA/D-BPSO</b> .....	1025
<i>Qian-Qian Li ; Qing-Xin Chu</i>	
<b>A MULTIPLE-INPUT MULTIPLE-OUTPUT ANTENNA ARRAY WITH LOW MUTUAL COUPLING FOR 5G BASE STATION APPLICATIONS</b> .....	1028
<i>Yufeng Zhu ; Yikai Chen ; Shiwen Yang</i>	
<b>A NOVEL CROSS-SHAPED DECOUPLING REFLECTOR ARRAY FOR ISOLATION ENHANCEMENT OF DUAL-POLARIZED ANTENNA</b> .....	1030
<i>Jinxin Li ; Jiongjian Fang ; Jun Dong ; Baolong Wu</i>	
<b>A NOVEL T AND E-SHAPED STUB NETWORK FOR MUTUAL COUPLING REDUCTION OF TWO MONOPOLE ANTENNAS</b> .....	1033
<i>Jinxin Li ; Jiongjian Fang ; Jiang-An Han ; Jun Dong</i>	
<b>HETEROGENEOUS INTEGRATION OF MILLIMETER-WAVE TRANSCEIVERS: FABRICATION, COMPONENTS AND SYSTEM (INVITED PAPER)</b> .....	1036
<i>Si-Long Tang ; Xi-Liang Cheng ; Yu Chen ; Xiao-Long Huang ; Cheng-Rui Zhang ; Liang Zhou</i>	
<b>DESIGN METHOD FOR QUASI-COAXIAL TRANSITION</b> .....	1039
<i>Ken Ning ; Xiao-Chun Li ; Jun-Fa Mao</i>	
<b>A NOVEL LTCC-BASED 3D PACKAGING FOR ULTRAWIDEBAND RF APPLICATIONS</b> .....	1042
<i>Jifan Zhang ; Dong Dong ; Jianghong Liu ; Haoxiang Lai</i>	
<b>DESIGN AND OPTIMIZATION OF A 130-GHZ WIRE BOND INTERCONNECTION</b> .....	1045
<i>Peng Gao ; Min Tang ; Wanli Jiang ; Junfa Mao ; Haikun Yue ; Yang Tang</i>	
<b>A MILLIMETER-WAVE SPDT USING INTEGRATED FAN-OUT WAFER LEVEL PACKAGING</b> .....	1048
<i>Xing Quan ; Yiqi Zhuang ; Jiang Luo ; Guodong Su</i>	
<b>STUDY ON THE EFFECTS OF RF COAXIAL CONNECTOR DEGRADATION ON SIGNAL INTEGRITY USING S PARAMETERS</b> .....	1051
<i>Hafiz Muhammad Bilal ; Ziren Wang ; Yuqi Zhou ; Ghulam Murtaza ; Jinchun Gao ; Xiaoming Li</i>	
<b>RESEARCH ON MICROSTRIP TRANSMISSION PERFORMANCE IN MICROWAVE CIRCUIT BOARD</b> .....	1054
<i>Duan Xidong ; Liu Qi ; Yuan Zhenguo</i>	
<b>HIGH-VOLTAGE PULSE GENERATOR FOR HIGH REPETITION RATE OPERATION</b> .....	1057
<i>Chao Wang ; Bin Yuan ; Wenxuan Shi ; Junfa Mao</i>	
<b>PROGRESS OF MULTIPACTOR DETECTION IN THE SPACE HIGH-POWER MICROWAVE COMPONENTS</b> .....	1060
<i>Huan Wei ; Xinbo Wang ; Wanzhao Cui ; Yun He ; Tiancun Hu ; Qinfen Sun</i>	

<b>DC-20 GHZ WIDEBAND LOW LOSS SPDT SWITCH MMIC</b> .....	1063
<i>Kefan Chen ; Fengjun Chen ; Jiang-An Han ; Xu Cheng ; Xian-Jin Deng</i>	
<b>A KA-BAND FREQUENCY SELECTIVE SURFACE BASED ON DOUBLE-OPENING COUPLING RING</b> .....	1066
<i>Yinian Feng ; Bo Zhang</i>	
<b>A 200GHZ 5-BRANCH WAVEGUIDE HYBRID COUPLER</b> .....	1069
<i>Zhongqian Niu ; Bo Zhang ; Yong Fan</i>	
<b>DUAL-BAND FILTER BASED ON COMMENSURATE-LINE NETWORK</b> .....	1072
<i>Shi-Qiang Zhang ; Lin-Sheng Wu ; Jun-Fa Mao</i>	
<b>A MODIFIED REFLECTION COEFFICIENT MODEL BASED ON PHYSICAL OPTICS FOR FOUR-PATH METHOD</b> .....	1075
<i>Wang Yi-Jin ; Wang Tong ; Tong Chuang-Ming</i>	
<b>STUDY ON WIDEBAND RADAR CLUTTER CHARACTERISTICS OF COMPOSITE ROUGH SURFACE BASED ON SCATTERING MODEL</b> .....	1078
<i>Gao Xiang Zou ; Chuang Ming Tong ; Wan Meng Liu ; Tong Wang ; Hua Long Sun</i>	
<b>DESIGN OF A SMALL PLANAR CPW-FED ULTRA-WIDEBAND ANTENNA</b> .....	1081
<i>Zhitao Yang ; Xuetian Wang ; Yinan Zhang ; Hongmin Gao</i>	
<b>A SINGLE-FEED BROADBAND CIRCULARLY POLARIZED CROSSED SECTOR DIPOLE ANTENNA</b> .....	1084
<i>Hua Wang ; Zhi-Hong Tu</i>	
<b>CYLINDRICAL LUNEBURG LENS ANTENNA LOADED WITH PRINTED LOOPS FOR SIDE LOBE LEVEL REDUCTION</b> .....	1087
<i>Pengfei Liu ; Xiao-Wei Zhu ; Xiang Wang ; Yan Zhang ; Chunfeng Yang ; Trong Hieu Le ; Hailiang Feng</i>	
<b>COMPARISON BETWEEN CIRCULAR AND HEXAGON DENSE FOCAL-PLANE ARRAY FEED OF MULTI-BEAM REFLECTOR</b> .....	1090
<i>Shanhong He ; Liangyu Xie ; Mengqian Ji</i>	
<b>A RECONFIGURABLE CIRCULAR-RING PATCH ANTENNA WITH PATTERN AND POLARIZATION DIVERSITIES</b> .....	1093
<i>Meizhen Xiao ; Yuehui Cui ; Ronglin Li</i>	
<b>A NOVEL FREQUENCY RECONFIGURABLE WIDEBAND CIRCULARLY POLARIZED CROSSED DIPOLE ANTENNA</b> .....	1096
<i>Meng Wei ; Wentao Li ; Xiaowei Shi</i>	
<b>A RECONFIGURABLE GRAPHENE REFLECTARRAY FOR GENERATION OF OAM IN THZ BAND</b> .....	1099
<i>Shunlai Sun ; Wentao Li ; Xiaowei Shi</i>	
<b>PLANAR LOG-PERIODIC MONOPOLE ARRAY ANTENNAS WITH REVERSE-FIRING</b> .....	1102
<i>Xiaoyuan Tan ; Saili Chen ; Xiuhua Jin ; Xiaodong Huang</i>	
<b>HIGH GAIN PRINTED ANTIPODAL VIVALDI ANTENNA WITH PARTIALLY SUBSTRATE CUTTING OUT</b> .....	1105
<i>Jinru Cao ; Chuang Zhang ; Xiangyu Wang ; Xiuhua Jin ; Xiaodong Huang</i>	
<b>WIDEBAND BEAM-FORMING NETWORK FOR LOW SIDELOBE LEVEL AND CONSTANT BEAMWIDTH</b> .....	1108
<i>Ji-Peng Chen ; Fu-Chang Chen</i>	
<b>MEASUREMENT SCHEME OF CHAFF CLOUD</b> .....	1111
<i>Yang Chengli ; Zuo Yanchun ; Guo Lixin ; Liu Songhua</i>	
<b>TIME DOMAIN MEASUREMENT SYSTEM FOR CHAFF CLOUD SCATTERING EVALUATION</b> .....	1113
<i>Li Chunyong ; Zuo Yanchun ; Guo Lixin ; Liu Songhua</i>	
<b>AN EFFICIENT ANALYSIS METHOD FOR MONOSTATIC QUANTUM RADAR CROSS SECTION</b> .....	1115
<i>Rui Yang ; Tiancheng Zhang ; Zi He ; Hong Cheng Yin ; Rushan Chen</i>	
<b>THE SPATIAL RESOLUTION ENHANCEMENT OF FY-4 SATELLITE MMSI BEAM SCANNING MEASUREMENTS</b> .....	1118
<i>Wei-Dong Hu ; Xian-Chen Zhang ; Shi Chen ; Lu Wang ; Xin Lv</i>	
<b>TWO 300-GHZ WIDE TUNING SIGNAL SOURCES IN 130-NM SIGE BICMOS PROCESS</b> .....	1121
<i>Binqing Lu ; Qin Li</i>	
<b>PREDICTION OF FIELD-TO-WIRE COUPLING PROBLEMS BASED ON DEEP NEURAL NETWORK</b> .....	1124
<i>Weikang Chen ; Zhenyi Niu ; Changqing Gu</i>	
<b>SWITCHABLE DUAL-BAND BANDPASS FILTER WITH FOUR-STATE FREQUENCY RESPONSES</b> .....	1127
<i>Shuhai Xie ; Xuehui Guan ; Ping Gui ; Baoping Ren ; Chuanyun Wang ; Junhui Zhao</i>	
<b>S-BAND 34.2DBM ENVELOPE-TRACKING TRANSMITTER WITH 54% OVERALL EFFICIENCY UTILIZING THE HIGH EFFICIENCY AND WIDEBAND ENVELOPE AMPLIFIER</b> .....	1130
<i>Tao Cao ; Youjiang Liu ; Yongtao Qiu ; Guifu Zhang ; Jie Zhou</i>	
<b>A RECONFIGURABLE COMPACT RF MODULE FOR 5G</b> .....	1133
<i>Yanan Chen ; Ling Tian ; Yan Li</i>	
<b>DESIGN OF A COMPACT MICROSTRIP TRIPLEXER-POWER DIVIDER WITH E-SHAPED RESONATOR</b> .....	1136
<i>Liming Tang ; Xinde Zhang ; Fei Jiao ; Shicheng Liu ; Gang Zhang ; Jiquan Yang</i>	
<b>DESIGNS OF SINGLE/DUAL-BAND BANDPASS FILTER WITH DIFFERENT SOURCE AND LOAD IMPEDANCES USING GENETIC ALGORITHM</b> .....	1138
<i>Kaijie Wang ; Wenxi Lyu ; Yang Gao ; Zhenyao Qian ; Gang Zhang</i>	
<b>A NOVEL CROSS-SLOT FREQUENCY SELECTIVE METASURFACE</b> .....	1140
<i>Huihui Mao ; Manli Wang ; Guang Hua</i>	
<b>LEAKY WAVE ANTENNA BASED ON COMPOSITE RIGHT/LEFT HANDED HALF-MODE SUBSTRATE INTEGRATED WAVEGUIDE</b> .....	1143
<i>Yangbin Jiang ; Leilei Liu ; Yangjun Hu ; Dingwei Jiang ; Minghong Chen</i>	



<b>A IMAGE REJECT MIXER MMIC WITH INTEGRATED IF HYBRID FOR UP-DOWN CONVERTER SYSTEM</b> .....	1146
<i>Li Ke ; He Jing ; Wei Hong-Tao ; Zhao Yu</i>	
<b>DESIGN OF A HIGH OUTBAND REJECTION CROSS-COUPLED SIW FILTER FOR MILLIMETER WAVE COMMUNICATIONS</b> .....	1149
<i>Xiang Zhang ; Yiwen Ji ; Weiheng Chen ; Jianyi Zhou ; Moquan Wang</i>	
<b>A 650-700 GHZ BANDPASS FILTER FOR SIDEBAND REJECTION RECEIVERS</b> .....	1152
<i>Jingyun Ouyang ; Bo Zhang</i>	
<b>A DESIGN OF TERAHERTZ WAVE ORTHOMODE TRANSDUCER (OMT)</b> .....	1155
<i>Zhen Zhou ; Bo Zhang ; Zhongqian Niu ; Yong Fan</i>	
<b>W-BAND SILICON-BASED TRANSITION SUBSTRATE-INTEGRATED WAVEGUIDE TO AIR-FILLED RECTANGULAR WAVEGUIDE</b> .....	1158
<i>Cong Li ; Wenhao Tan ; Hao Luo ; Houjun Sun</i>	
<b>THEORETICAL AND EXPERIMENTAL COMPARATIVE ANALYSIS BETWEEN DOUBLE-TOROID AND QUADRUPLE-SLAB FERRITE PHASE SHIFTERS</b> .....	1161
<i>G. J. Deng ; W. H. Huang ; J. W. Li ; H. Shao ; T. Ba ; L. T. Guo ; S. Y. Xie</i>	
<b>EFFICIENT ANALYSIS OF VIVALDI ARRAY USING P-CBFM/P-FFT METHOD</b> .....	1164
<i>Ke Xiao ; Liang Ding ; Jun Dong ; Dongfang Guan ; Shunlian Chai</i>	
<b>DUAL-POLARIZED DUAL-DIPOLE ANTENNA WITH LOW MUTUAL COUPLING FOR MASSIVE MIMO</b> .....	1167
<i>Yue Qin ; Yuehui Cui ; Ronglin Li</i>	
<b>A FOUR-PORT SQUARE LOOP ANTENNA INTEGRATED WITH FEEDING NETWORK</b> .....	1170
<i>Lu Chen ; Qingxin Guo ; Zengrui Li</i>	
<b>AN OPEN-ENDED WAVEGUIDE SLOT ANTENNA WITH WIDE BEAM</b> .....	1173
<i>Hui Huang ; Shi-Shan Qi ; Tian Zhou ; Yong Sun ; Wen Wu</i>	
<b>BROADBAND SINGLE-LAYER CIRCULARLY POLARIZED REFLECTARRAY ANTENNA AT W BAND</b> .....	1176
<i>Yong Sun ; Shi-Shan Qi ; Hui Huang ; Tian Zhou ; Wen Wu</i>	
<b>A SIW HORN ANTENNA WITHOUT BROAD WALL LOADED WITH AIR-VIAS-PERFORATED IN ARCUATE ARRANGEMENT</b> .....	1179
<i>Wei Li ; Shaobin Liu ; Xiangkun Kong ; Si Zhang ; Rui Yang</i>	
<b>TUNABLE MAIN LTE 4 X 4 MIMO ANTENNA FOR FUTURE SMARTPHONE APPLICATION</b> .....	1181
<i>Mingkai Wang ; Yuanqing Chen ; Hao Jin ; Guangli Yang</i>	
<b>A 1-BIT 220GHZ RECONFIGURABLE REFLECTARRAY</b> .....	1184
<i>Liqing Sun ; Bin Li ; Mengda Wu ; Xin Lv</i>	
<b>A WIDE-BAND CYLINDRICAL DIELECTRIC RESONATOR ANTENNA WITH ARTIFICIAL MAGNETIC CONDUCTOR STRUCTURES</b> .....	1186
<i>Jianqiao Han ; Fan-Yi Meng ; Qun Wu</i>	
<b>A METAMATERIAL-INSPIRED RFID TAG ANTENNA</b> .....	1189
<i>Xiangyu Jin ; Changzhou Hua ; Zhenjun Lu ; Li Liu</i>	
<b>A METHOD BASED ON META-SURFACE BESSEL LENS FOR CONVERGING OAM BEAMS</b> .....	1192
<i>Han Chen ; Liangqi Gui ; Lixing Liu ; Zixiao Zhang ; Dandan Liu ; Ke Chen ; Liang Lang</i>	
<b>DESIGN OF A HAT FEED FOR RING FOCUS REFLECTOR ANTENNA</b> .....	1195
<i>Yi-Jun Zhao ; Bang-Cai Zhu ; Yan-Bo Meng ; Ze-Hong Yan</i>	
<b>DESIGN OF A 2-20GHZ CAVITY BACKED SPIRAL ANTENNA</b> .....	1198
<i>Jiawen Sun ; Feng Zhang ; Weifeng Zhu</i>	
<b>A RECONFIGURABLE ELEMENT DESIGN USING HIGH POWER PIN SWITCH FOR GRATING-LOBE SUPPRESSION APPLICATION</b> .....	1201
<i>Shaoyi Xie ; Jiawei Li ; Letian Guo ; Guangjian Deng ; Tao Ba ; Hao Shao</i>	
<b>EVALUATION ON THE MUSIC ALGORITHM PERFORMANCE OF UNIFORM RECTANGULAR ARRAYS</b> .....	1204
<i>Jin Liu ; Minhong Wei ; Huafang Li ; Song Shi ; Xin Wang ; Xiaoyu Wang ; Nan Mei</i>	
<b>BISTATIC RCS CHARACTERISTICS OF CORNER REFLECTOR IN TIME DOMAIN</b> .....	1207
<i>Luo Ying ; Zuo Yanchun ; Guo Lixin ; Liu Songhua</i>	
<b>STUDY ON PROPAGATION CHARACTERISTICS OF OUTDOOR MASSIVE MIMO CHANNEL BASED ON THE SBR METHOD</b> .....	1210
<i>Lin Yao ; Yuanjian Liu ; Shuangde Li</i>	
<b>RCS ANALYSIS OF UAV GROUPS</b> .....	1213
<i>Gejun Liu ; Jincong Huo ; Le Xu ; Xiaowei Shi ; Xiaoning Yang ; Zhuo Chen</i>	
<b>BIRMM FULLY POLARIMETRIC CALIBRATION STANDARD FOR MICROWAVE RADIOMETER</b> .....	1215
<i>Chen Ling ; Cheng Junjie ; Sun Xiaoning ; Zhai Hong ; Xing Xiaoyun ; Cheng Chunyue</i>	
<b>PASSIVE MILLIMETER-WAVE IMAGING EXPERIMENT AND SIMULATION OF BUBBLES IN SHIP WAKES</b> .....	1218
<i>Fangzhou Tang ; Liangqi Gui ; Shuaidan Yan ; Yu Ding ; Bo Huang ; Ke Chen ; Liang Lang</i>	
<b>ELECTROMAGNETIC INFLUENCE ON ELECTRIC VEHICLES BY WIRELESS INDUCTIVE CHARGING SYSTEM</b> .....	1221
<i>Rui-Yu Wang ; Ping-Ping Ding</i>	
<b>AN ELECTRIC DRIVE SYSTEM MODELLING METHOD BASED ON MODULE BEHAVIOR</b> .....	1224
<i>Ying Xiong ; Xiao Chen ; Luyu Zong ; Xiaojian Li ; Xiuli Nie ; Guang Yang ; Xiaofan Zhao</i>	
<b>LINEAR DYNAMIC RANGE ANALYSIS OF THE CIRCUIT IN EMI NEAR-FIELD SCANNING SYSTEM</b> .....	1227
<i>Jing-Ren Lv ; Xiao-Chun Li ; Jun-Fa Mao</i>	
<b>DESIGN OF A X-BAND DOWN CONVERTER MODULE</b> .....	1230
<i>Chengqiang Qiu ; Shu Zhang</i>	

<b>COMPACT LTCC BANDPASS FILTER (BPF) WITH HIGH FREQUENCY SELECTIVITY BASED ON MIXED ELECTRIC AND MAGNETIC COUPLING .....</b>	<b>1233</b>
<i>Qichen Zhang ; Yalin Guan ; Wen Luo</i>	
<b>A NOVEL DUAL-BAND MONOPOLE ANTENNA LOADED WITH CRLH UNIT .....</b>	<b>1236</b>
<i>Hao Wang ; Song Wu ; Chunbo Wu ; Jun Wang</i>	
<b>ATMOSPHERIC REFRACTION'S INFLUENCE ON LARGE RADIO TELESCOPES' OBSERVATIONS .....</b>	<b>1239</b>
<i>Yongchen Jiang ; Jinqing Wang ; Wei Gou ; Linfeng Yu</i>	
<b>AN ACCURATE TRANSISTOR MODEL AND PARAMETER EXTRACTION FOR RECTIFIER SIMULATION .....</b>	<b>1242</b>
<i>Ying Wang ; Wei Gao ; Yazhou Dong ; Xumin Yu ; Xiaojun Li</i>	
<b>A 6-BIT CMOS PASSIVE PHASE SHIFTER FOR X-BAND PHASED ARRAYS .....</b>	<b>1245</b>
<i>Shiwei Wu ; Dongwei Pang</i>	
<b>SCALABLE AGILENTHBT MODEL FOR GAAS HBTS.....</b>	<b>1248</b>
<i>Zhiqiang Wang ; Zhongchao Xu ; Jie Liu ; Jun Liu</i>	
<b>COMPACT CROSS-COUPLED BANDPASS FILTER WITH SECOND AND THIRD HARMONIC SUPPRESSION.....</b>	<b>1251</b>
<i>Baoguang Liu ; Yunpeng Lyu ; Chonghu Cheng</i>	
<b>AUTOMATIC IMPEDANCE MATCHING FOR THREE-STUB WAVEGUIDE TUNER BASED ON SPACE MAPPING .....</b>	<b>1254</b>
<i>Liangkai Zhou ; Yu Kuang ; Song Li ; Xiaolin Fan ; Qingsha S. Cheng</i>	
<b>A WIDEBAND SUBSTRATE INTEGRATED WAVEGUIDE FILTERING POWER DIVIDER .....</b>	<b>1257</b>
<i>Bing Wang ; Guo Yang ; Ruqi Xiao ; Wen Wu</i>	
<b>A NOVEL MULTILAYER SIW FILTER USING SILICON BASED MEMS TECHNOLOGY .....</b>	<b>1260</b>
<i>Guangfu Li ; Yong-Zhi Zhao ; Yan-Hong Gao</i>	
<b>A 45~85GHZ BROADBAND DIRECTIONAL COUPLER ON GAAS TECHNOLOGY .....</b>	<b>1263</b>
<i>Yichao Meng ; Jincal Wen ; Wentao Wu ; Minyun Jiang ; Lingling Sun</i>	
<b>MULTILAYER SLOT-COUPLER BASED ON INTEGRATED SUBSTRATE GAP WAVEGUIDE .....</b>	<b>1266</b>
<i>Liangjie Lin ; Dongya Shen ; Xiupu Zhang</i>	
<b>INTEGRATED SUBSTRATE GAP WAVEGUIDE WIDEBAND BANDPASS FILTER WITH TWO TRANSMISSION ZEROS AND WIDE STOPBAND.....</b>	<b>1269</b>
<i>Jie Yang ; Dongya Shen ; Xiupu Zhang</i>	
<b>OVERVIEW OF PLANAR SPIRAL INDUCTANCE DESIGN AND MODELING .....</b>	<b>1272</b>
<i>Cheng Jiadong ; Xia Bin</i>	
<b>A METHOD FOR MEASURING DIELECTRIC PROPERTIES OF DIELECTRIC LAMINATES .....</b>	<b>1275</b>
<i>Kwok L. Chung ; Shushuai Xie ; Mengxin Guan ; Lingling Wang ; Botao Feng</i>	
<b>RESEARCH ON THE REFLECTION CHARACTERISTIC OF FLYING ELECTROMAGNETIC TOROID PULSES ON AN INCLINED AIR-METAL INTERFACE.....</b>	<b>1278</b>
<i>Sheng Liu ; Ren Wang ; Mo-Ran Zhang ; Bing-Zhong Wang</i>	
<b>A WIDEBAND TRIPLE-MODE SUBSTRATE INTEGRATED WAVEGUIDE CAVITY-BACKED SLOT ANTENNA.....</b>	<b>1281</b>
<i>Yun-Yong Zou ; Yong-Dan Kong</i>	
<b>DEVELOPMENT OF A BROADBAND WIDE-ANGLE QUAD-RIDGED FLARED HORN .....</b>	<b>1284</b>
<i>F. Yang ; B. Du ; J. Ma ; Y. Wu ; Y. He ; D. Li</i>	
<b>KA-BAND SINGLE LAYER WIDEBAND MICROSTRIP PATCH ANTENNA .....</b>	<b>1287</b>
<i>Tian Zhou ; Shi-Shan Qi ; Yong Sun ; Hui Huang ; Wen Wu</i>	
<b>DESIGN OF RECONFIGURABLE CIRCULARLY POLARIZED REFLECTARRAY ANTENNA AT 100 GHZ BASED ON LIQUID CRYSTALS.....</b>	<b>1290</b>
<i>Chuan-Hong Zhao ; Qun Wu ; Fan-Yi Meng</i>	
<b>A COMPACT DUAL BAND-NOTCHED AND DUAL-POLARIZATION ANTENNA FOR BASE STATION.....</b>	<b>1294</b>
<i>Yuan-Long Chen ; Qing-Xin Chu</i>	
<b>AN IMPROVED BROADBAND MULTI-LAYER DUAL-POLARIZED ANTENNA FOR UAV RADARS .....</b>	<b>1297</b>
<i>Yao Zong ; Jun Ding ; Chenjiang Guo ; Jun Zhang</i>	
<b>S-KU BANDS PRINTED VIVALDI PHASED ARRAY DESIGN .....</b>	<b>1300</b>
<i>Linglu Chen ; Yufeng Yu</i>	
<b>A KA-BAND HIGH-GAIN DUAL-POLARIZED MICROSTRIP ANTENNA ARRAY FOR 5G APPLICATION .....</b>	<b>1303</b>
<i>Mengyi Wang ; Hao Wang ; Jianyin Cao ; Jingwei Zhou ; Guochun Liang ; Lei Wang ; Shunxi Jiang</i>	
<b>A NOVEL FOLDED TRANSMITARRAY ANTENNA .....</b>	<b>1306</b>
<i>Guan-Tao Chen ; Yong-Chang Jiao ; Gang Zhao</i>	
<b>K-BAND LIQUID-CRYSTAL-BASED FREQUENCY RECONFIGURABLE CONFORMAL ARRAY ANTENNA.....</b>	<b>1309</b>
<i>Zhen Wang ; Yupeng Liu ; Di Jiang</i>	
<b>A NEW CTS ANTENNA ELEMENT .....</b>	<b>1313</b>
<i>Jie Du ; Ping Li ; Xiaowei Shi</i>	
<b>A 20MHZ SUPPLY MODULATOR DESIGNED FOR ENVELOPE TRACKING POWER AMPLIFIER AT 42GHZ.....</b>	<b>1316</b>
<i>Hao-Tian Li ; Xiao-Wei Zhu ; Neng-Yuan Zhong ; Fan Meng ; Xiang Wang ; Hong-Lei Sun ; Yuhai Shi</i>	
<b>AN IMPROVED VARIABLE PULSE SOURCE BASED ON AVALANCHE TRANSISTOR .....</b>	<b>1319</b>
<i>Huai Fang Su ; Xin Huai Wang ; Ling Fang ; Bo Chao Zhang ; Yin Xu</i>	
<b>DESIGN OF A NOVEL 0.17~0.22 THZ SUB-HARMONIC MIXER BASED ON ANTI-PARALLEL PLANAR THZ SCHOTTKY DIODES.....</b>	<b>1322</b>
<i>Zhuo Chen ; Qiang Feng ; Zhaoyang Liu ; Chaoqun Zhang ; Jianqin Deng</i>	

<b>DESIGN OF A NOVEL 0.25–0.3THZ 4TH-HARMONIC MIXER USING PLANAR THZ SCHOTTKY DIODES</b> .....	1325
<i>Zhuo Chen ; Mo Wang ; Haiming Xin ; Mingchao Wang ; Qiang Feng ; Jianqin Deng</i>	
<b>A 260 GHZ LOW PHASE NOISE VCO IN 40 NM CMOS TECHNOLOGY</b> .....	1328
<i>Zhongliang Zhou ; Qin Li</i>	
<b>RESEARCH ON THE ALTITUDE MEASUREMENT OF UAV TARGETS USING A FREQUENCY SCANNED RADAR</b> .....	1331
<i>He Zhai ; Hao Wang ; Zhengkang Feng ; Yuqian Yang ; Dalong Xu ; Wenwen Xu ; Shuanglong Quan</i>	
<b>A DATA PROCESSING METHOD OF UAV DETECTION USING MECHANICAL AND ELECTRONICAL SCANNED RADAR</b> .....	1334
<i>Zhengkang Feng ; Hao Wang ; He Zhai ; Yuqian Yang ; Dalong Xu ; Wenwen Xu ; Shuanglong Quan</i>	
<b>A TERAHERTZ TUNABLE DUAL-BAND MODULATOR BASED ON GRAPHENE METAMATERIALS</b> .....	1337
<i>Xiaolong Zhang ; Zhe Chen ; Qiang Miao ; Wei Wang ; Rong Zong</i>	
<b>A TERAHERTZ MULTI-BAND METAMATERIAL MODULATOR BASED ON THE PHASE TRANSITION PRINCIPLE OF VANADIUM DIOXIDE</b> .....	1340
<i>Qiang Miao ; Zhe Chen ; Xiaolong Zhang ; Wei Wang ; Rong Zong</i>	
<b>AN IMPROVED LARGE-SIGNAL EQUIVALENT CIRCUIT MODEL FOR GAN HEMTS</b> .....	1343
<i>Chang Meng ; Lu Sun ; Jie Cao ; Jinsong Zhan ; Fushun Nian</i>	
<b>DUAL-POLARIZED MAGNETO-ELECTRIC DIPOLE ANTENNA AND MIMO ARRAY FOR 5G MILLIMETER-WAVE APPLICATIONS</b> .....	1346
<i>Jianjun Wu ; Wei Yu ; Jianxin Li</i>	
<b>DESIGN OF DUAL-CHANNEL ANTI-INTERFERENCE MULTI-MODE NAVIGATION RF RECEIVER</b> .....	1349
<i>Zhijian Chen ; Bin Li ; Yuchen Wang ; Hong Chen ; Zhaohui Wu</i>	
<b>A C-BAND TRANSCEIVER MULTI-FUNCTION CHIP</b> .....	1352
<i>Yang Chen ; Yuehang Xu ; Yijun Chen ; Ruimin Xu</i>	
<b>A KA BAND MULTIFUNCTION MMIC</b> .....	1355
<i>Yijun Chen ; Wei Tong ; Jiping Lv ; Liulin Hu ; Li Su</i>	
<b>AN ULTRA-BROADBAND K/KA-BAND (17–40 GHZ) LNA MMIC IN 0.15 <math>\mu</math>M GAAS PHEMT</b> .....	1358
<i>Umar Dilshad ; Chen Chen ; Amjad Altaf ; Jungang Miao</i>	
<b>DESIGN OF MICROSTRIP CROSS-COUPLING BANDPASS FILTER WITH HIGH SELECTIVITY AND STOPBAND SUPPRESSION USING INTERNAL COUPLING SIRS</b> .....	1361
<i>Jin Chang ; Jinling Dai ; Yuyu Li</i>	
<b>LTCC WIDEBAND BANDSTOP FILTER WITH CONTROLLABLE BANDWIDTH USING INTERNAL COUPLING</b> .....	1364
<i>Di-Si Wu ; Yuan Chun Li ; Bin-Jie Hu</i>	
<b>A DESIGN OF NEW MICROSTRIP-SLOTLINE TRANSITION STRUCTURE</b> .....	1367
<i>Zhang Zhi-Yue ; Ji Wu-Sheng ; Sun Fa-Kun ; Tong Ying-Yun ; Wang Lin-Nian</i>	
<b>A NOVEL SIW DUAL-BAND FILTERING DIVIDER</b> .....	1370
<i>Changzhou Hua ; Wenhan Wu ; Meng Liu ; Yi Chen</i>	
<b>LTCC TECHNOLOGY BASED ULTRA LIGHT AND ULTRA SMALL VOLUME T/R MODULE</b> .....	1372
<i>Zhigang Zhang ; Jiawen Sun ; Weifeng Zhu ; Shu Zhang</i>	
<b>DESIGN OF A 3.2GHZ~50GHZ ULTRA WIDEBAND YIG-TUNABLE-FILTER</b> .....	1375
<i>Zhigang Zhang ; Jiawen Sun ; Weifeng Zhu ; Shu Zhang ; Peng Gao</i>	
<b>INFLUENCE OF NON-IDEAL TRM CALIBRATION ITEMS TO S-PARAMETER MEASUREMENT</b> .....	1378
<i>Tingming Guo ; Jiangtao Su ; Zheng Xing ; Jianhua Wang</i>	
<b>A 5.4GHZ DUAL-POLARIZATION OMNIDIRECTIONAL ANTENNA</b> .....	1381
<i>Jinfeng Hu ; Yanfei Li ; Wen Luo ; Dongdong Zeng ; Chen Chao</i>	
<b>A BROADBAND AND LOW SIDELobe MONOPULSE SLOT ANTENNA ARRAY BY USING CAVITIES AND MULTILAYER WAVEGUIDE FEED-NETWORKS</b> .....	1384
<i>Yangsheng Wu ; Fuping Hou ; Min Chen</i>	
<b>WIDEBAND AMC SURFACE AND APPLICATIONS TO LOW PROFILE CIRCULARLY POLARIZED SLOT ANTENNAS</b> .....	1387
<i>Zhen-Dong Wang ; Yong-Chang Jiao ; Yi-Xuan Zhang ; Jing-Xuan Wen ; Gang Zhao</i>	
<b>A 28GHZ MILLIMETER-WAVE ANTENNA ARRAY WITH SIW FEEDING NETWORK</b> .....	1390
<i>Yuan Feng ; Binqi Yang ; Yiwen Ji ; Jianyi Zhou</i>	
<b>A WIDEBAND OMNIDIRECTIONAL ANTENNA FOR INDOOR DIGITAL TERRESTRIAL TELEVISION APPLICATION</b> .....	1393
<i>Yu-Lin Chang ; Qing-Xin Chu ; Rui-Dian Yang ; Wei-Ming Lu</i>	
<b>DESIGN OF MULTI-BEAM ANTENNA BASED ON ROTMAN LENS</b> .....	1396
<i>Junwen Zhang ; Weijun Wu ; Yang Feng ; Zhi-Ya Zhang</i>	
<b>DESIGN OF A CIRCULARLY POLARIZED TRANSMITARRAY WITH A LINEARLY POLARIZED FEEDER</b> .....	1399
<i>Baokun Xi ; Qianzhong Xue ; Yang Cai ; Yong Wang ; Shaopeng Yang ; Lianzheng Zhang ; Hong Ma</i>	
<b>A NOVEL RECONFIGURABLE APERTURE-COUPLED FILTERING ANTENNA WITH CIRCULAR POLARIZATION DIVERSITY</b> .....	1402
<i>Changzhou Hua ; Xinyuan Cheng ; Borana Mahlet Amogne ; Yi Chen</i>	
<b>RESEARCH ON A DUAL-POLARIZED ANTENNA BASED ON AN ANNULAR SLOT ON SICL RESONATOR AND PRINTED MONOPOLE</b> .....	1405
<i>Li Wang ; Lizhong Song ; Junrui Zhang</i>	
<b>RESEARCH ON A DUAL-POLARIZED ANTENNA COMBINING A SLOT ON SICL RESONATOR AND MICROSTRIP PATCH</b> .....	1408
<i>Shengkai Gao ; Lizhong Song</i>	

<b>SLOT-COUPLED PERFORATED DIELECTRIC RESONATOR ESPAR FOR X-BAND APPLICATIONS</b> .....	1411
<i>Xixi Song ; Zu-Hui Ma ; Rongrong Qian ; Dongya Shen</i>	
<b>EXPERIMENT ON 140GHZ FULLY POLARIMETRIC STAND- OFF HOLOGRAPHIC RADAR IMAGING FOR CONCEALED WEAPON DETECTION</b> .....	1414
<i>Wen Jing ; Jianfei An ; Binbin Cheng ; Ge Jiang ; Jian Zhang</i>	
<b>ITERATIVE PARAMETER ESTIMATION FOR PRECISION SAR PROCESSING USING CHIRP SCALING</b> .....	1417
<i>Tao Chen ; Yongfei Ding ; Ruifan Pang ; Cheng Gong ; Dinghai Xu ; Hengyang Zhang ; Bo Chen</i>	
<b>DEVELOPMENT OF KA-BAND HIGH PERFORMANCE AND MINIATURIZED TRANSCEIVER FRONT-END</b> .....	1420
<i>Jin Chang ; Dong Wang ; Lixue Zhou ; Jinhua Hao ; Fanghong Yang</i>	
<b>ALGAN/GAN MIS-HEMTS WITH IN SITU SIN<sub>x</sub> AS GATE DIELECTRIC AND PASSIVATION LAYER</b> .....	1423
<i>Jingxiang Chen ; Quanbin Zhou ; Xiaoyi Liu ; Hong Wang</i>	
<b>THE DESIGN OF A PHASED ARRAY RADAR FOR DETECTING UNMANNED AERIAL VEHICLE</b> .....	1426
<i>Feng Feng ; Hao Wang ; Zhengkang Feng ; He Zhai ; Dalong Xu ; Shuanglong Quan ; Wenwen Xu ; Shijian Ding</i>	
<b>ELECTROMAGNETIC ANECHOIC CHAMBER DESIGN AND OPTIMIZATION METHOD</b> .....	1429
<i>Digang Fan</i>	
<b>COMPACT DUAL-BAND BANDPASS FILTER USING OVERLAPPED HELICAL RESONATORS</b> .....	1432
<i>Lian Yang ; Jin-Xu Xu ; Xiu Yin Zhang ; Yun Fei Cao</i>	
<b>THE DESIGN AND RESEARCH OF ELECTROMAGNETIC COMPATIBILITY IN DIGITAL T/R MODULE</b> .....	1435
<i>Xiaobo Cai ; Han Liu ; Jianfeng Yang ; Can Lin</i>	
<b>TERAHERTZ QUARTER WAVE PLATE DESIGN BASED ON METASURFACE</b> .....	1438
<i>Yingchao Hao ; Bowen Yang ; Qiushi Li ; Shiyi Xiao</i>	
<b>DUAL-BAND MICROSTRIP FILTERING BALUN WITH FLEXIBLE FREQUENCY RATIO</b> .....	1441
<i>Riyan Tian ; Zibin Weng ; Yang-Dong Yan ; Junjie Dou</i>	
<b>A 6-BIT ATTENUATOR OF 8–12 GHZ WITH LOW PHASE VARIATIONS IN 0.13-UM CMOS TECHNOLOGY</b> .....	1444
<i>Dongwei Pang ; Shiwei Wu ; Xingguo Chen ; Yongfeng Gui</i>	
<b>DESIGN OF A 24-30GHZ WIDE TUNING-RANGE VCO FOR 5G MILLIMETER WAVE COMMUNICATION</b> .....	1447
<i>Zhijian Chen ; Hong Chen ; Bin Li ; Yongxiang Li ; Zhaohui Wu ; Yuming Xu</i>	
<b>A NOVEL TRANSMISSION LINE PHASE TECHNIQUE FOR COMPLEX PERMITTIVITY MEASUREMENT</b> .....	1450
<i>Hengming Wu ; Xueguan Liu ; Changrong Liu ; Huiping Guo ; Xinmi Yang</i>	
<b>DESIGN TECHNIQUES OF PASSIVE DEVICES FOR BROADBAND CMOS MILLIMETER-WAVE CIRCUITS</b> .....	1453
<i>Dixian Zhao ; Jiecheng Zhong ; Diwei Li ; Ning Jiang ; Na Peng ; Yongran Yi ; Chongyu Yu</i>	
<b>REVIEW OF 28GHZ CMOS PHASED-ARRAY TRANSCEIVERS FOR 5G NEW RADIO</b> .....	1456
<i>Rui Wu ; Manlai Ding ; Xuemei Wang ; Zhijie Chen</i>	
<b>LOW COST FREQUENCY DOUBLER USING A MODIFIED DUAL-MODE HYBRID RING COUPLER</b> .....	1459
<i>Jie Xu ; Zhengbin Xu ; Yinjie Cui ; Jian Guo ; Cheng Qian ; Dixian Zhao</i>	
<b>A REVIEW OF TUNING TECHNIQUES OF ON-CHIP TERAHERTZ VCO</b> .....	1462
<i>Zheng Wang</i>	
<b>WIDEBAND MM-WAVE CMOS VCOS - SWITCHED INDUCTOR, MODE-SWITCHING INDUCTIVE TUNING, AND HARMONIC EXTRACTION TECHNIQUES</b> .....	1465
<i>Jun Yin ; Xi Meng ; Pui-In Mak ; Rui P. Martins</i>	
<b>A K-/KA-BAND 21.4 DBM POWER AMPLIFIER WITH FOUR-WAY TWISTED COMBINER IN 0.13 μM SIGE BICMOS</b> .....	1468
<i>Yuanhui Gu ; Chenxi Zhao ; Hongyan Tang ; Dong Chen ; Xiaoning Zhang ; Yunqiu Wu ; Kai Kang</i>	
<b>END-FIRE SUBSTRATE EXTENDED METASURFACE ANTENNA ARRAY FOR MM-WAVE APPLICATIONS</b> .....	1471
<i>Kerong Xu ; Xiangxiang Li ; Zhihong Zhang ; Suzhen Ye ; Jinwen Zhou ; Yeqiang Li</i>	
<b>ALL-DIELECTRIC MATERIAL TRANSMITTED LENS FOR ORBITAL ANGULAR MOMENTUM GENERATION</b> .....	1474
<i>M. L. Lin ; X. Q. Cao ; J. J. Yi ; R. Feng ; H. L. Zhang</i>	
<b>ANGLE-SENSITIVE METASURFACE WITH EXPANDED DEFLECTION RANGE FOR CONTINUOUS ILLUMINATION ANGLES</b> .....	1477
<i>Ying Li ; Weien Lai ; Zhiping Yin ; Jun Yang</i>	
<b>ULTRA-THIN CONFORMAL METASURFACE FOR BACKWARD RCS REDUCTION OF LARGE CYLINDRICAL OBJECT</b> .....	1480
<i>Xin-Yao Luo ; Ke Chen ; Wen-Long Guo ; Yi-Jun Feng</i>	
<b>A BROADBAND POLARIZATION ROTATOR METASURFACE</b> .....	1483
<i>Meraj E. Mustafa ; Ramiz Izhar ; M. S. Wahidi ; Farooq A. Tahir ; Qammer H. Abbasi</i>	
<b>AN ANISOTROPIC DUAL-BROADBAND CPC METASURFACE</b> .....	1485
<i>Ramiz Izhar ; Meraj E. Mustafa ; M. S. Wahidi ; Farooq A. Tahir</i>	
<b>NEW CONCEPT OF MULTI-STATE DIPLEXERS IMPLEMENTED ON PLANAR AND CAVITY CIRCUITS</b> .....	1487
<i>Rui-Sen Chen ; Sai-Wai Wong ; Guowen Chen ; Xiongmin Hu ; Jing-Yu Lin ; Lei Zhu ; Yejun He</i>	
<b>A STRIPLINE-FED STACKED SPIRAL ANTENNA WITH IMPROVED PERFORMANCE</b> .....	1490
<i>Ning Luo ; Yejun He ; Sai-Wai Wong ; Long Zhang</i>	
<b>A COMPACT PLANAR DIPLEXER USING COMMON DUAL-MODE RECTANGULAR PATCH RESONATORS</b> .....	1493
<i>Jian-Hui Guo ; Sai-Wai Wong ; Ze-Ming Xie ; Long Zhang ; Lei Zhu ; Yejun He</i>	

<b>HIGHLY-SELECTIVE DUAL-BAND BANDPASS FILTER WITH EXTREMELY WIDE TUNING RANGE FOR PASSBANDS</b> .....	1496
<i>Jian-Hui Guo ; Sai-Wai Wong ; Ze-Ming Xie ; Long Zhang ; Lei Zhu ; Yejun He</i>	
<b>ELECTRO-THERMAL ANALYSIS OF MOSFET AMPLIFIER CIRCUIT BY THE SETD MODEL</b> .....	1499
<i>Hanxiang Li ; Dazhi Ding ; Zi He ; Hong Cheng Yin ; Lin Guan</i>	
<b>FUTURE OF ELECTROMAGNETIC EDUCATION (INVITED PAPER)</b> .....	1502
<i>Wei E. I. Sha ; Zhixiang Huang</i>	
<b>FAST WIDE ANGULAR SWEEPING OF ELECTROMAGNETIC SCATTERING FROM ROUGH SURFACES</b> .....	1504
<i>Xiao-Min Pan ; Si-Lu Huang ; Xin-Qing Sheng</i>	
<b>ELECTROMAGNETIC SCATTERING OF DIELECTRIC DISCRETE BODY OF REVOLUTION ABOVE A LOSSY HALF SPACE</b> .....	1507
<i>Chenxi Zhu ; Juzheng Han ; Zi He ; Hongcheng Ying ; Rushan Chen</i>	
<b>DESIGN APPROACH OF SINGLE-/DUAL-BAND WILKINSON POWER DIVIDERS WITH SINGLE/TWO SECTION TRANSMISSION LINE TRANSFORMERS</b> .....	1509
<i>Xiaolong Wang ; Bin Wu ; Qingfeng Wang ; Zhewang Ma ; Chun-Ping Chen</i>	
<b>WIDEBAND POWER DIVIDER BASED ON KLOPFENSTEIN TAPERED LINE</b> .....	1512
<i>Weijuan Chen ; Shulan Li ; Zehai Wu ; Yuanan Liu</i>	
<b>ANALYSIS AND CO-DESIGN OF BAND-STOP FILTER AND TUNABLE LIQUID CRYSTAL PHASE SHIFTER</b> .....	1515
<i>Chang Ding ; Fan-Yi Meng ; Hui-Lin Mu ; Jian-Feng Lv ; Qun Wu</i>	
<b>ROUGH-BASED TARGET TRACKING ALGORITHM FOR CONTINUOUS WAVE THROUGH WALL RADAR</b> .....	1518
<i>Yipeng Ding ; Xiaoyi Lin ; Guowei Huang ; Zhengmin Li</i>	
<b>NOVEL RECONFIGURABLE DIPLEXERS BASED ON SHORT-CIRCUIED STUB-LOADED RESONATOR</b> .....	1521
<i>Xuehui Guan ; Ping Gui ; Wei Huang ; Shuhai Xie ; Baoping Ren ; Xiaoyan Zhang</i>	
<b>APPROPRIATE GENERIC AND COMPACT MOBILE TERMINAL ANTENNAS IN USAGE SCENARIOS</b> .....	1524
<i>Yi Chen ; Dirk Manteuffel</i>	
<b>NOVEL BANDPASS FILTER USING METALLIC PHOTONIC CRYSTAL STRUCTURE</b> .....	1527
<i>Chun-Ping Chen ; Tetsuo Anada ; Xiaolong Wang</i>	
<b>DESIGN OF TM<sub>03</sub> MODE FILTERING PATCH ANTENNA WITH IMPROVED SIDELobe LEVEL</b> .....	1530
<i>Heng-Jian Su ; Sheng Sun ; Yi-Yao Hu</i>	
<b>TWO TYPES OF DUAL-BAND BANDPASS FILTERING WILKINSON POWER DIVIDER WITH MICROSTRIP COMPOSITE RESONATORS</b> .....	1533
<i>Nan Zhang ; Xiaolong Wang ; Naoki Kimata ; Zhewang Ma ; Masataka Ohira</i>	
<b>FILTERING BALUN BASED ON MULTI-MODE RECTANGULAR CAVITY INTEGRATED WITH PCB FEEDING STRUCTURE</b> .....	1536
<i>Xin Fang ; Yuan Chun Li ; Di-Si Wu ; Quan Xue</i>	
<b>A HIGH-SENSITIVITY ANTENNA SENSOR FOR TWO-DIMENSIONAL STRAIN MONITORING</b> .....	1539
<i>Kwok L. Chung ; Lingling Wang ; Ruiqi Liu ; Jianlin Luo ; Chunwei Zhang</i>	
<b>DESIGN OF FILTERING ANTENNA USING HALF-MODE SUBSTRATE INTEGRATED WAVEGUIDE TECHNOLOGY</b> .....	1542
<i>Kun-Zhi Hu ; Ming-Chun Tang ; Yang Wang ; Dajiang Li ; Mei Li ; Daotong Li</i>	
<b>THEORY OF EM METASURFACES AND ITS APPLICATION IN MICROWAVE POWER COLLECTION</b> .....	1545
<i>Shi-Wei Dong ; Yazhou Dong ; Xumin Yu ; Ying Wang</i>	
<b>DISCUSSION ON REGULAR HEXAGON ARRAY PARAMETER OPTIMIZATION IN MICROWAVE POWER TRANSMISSION</b> .....	1548
<i>Gexin Peng ; Yi Lu ; Xiaojie Cheng</i>	
<b>POWER EQUALIZATION SCHEME FOR MULTI-USER RADIATIVE FOCUSING WIRELESS POWER TRANSFER</b> .....	1551
<i>Jinlong Bao ; Deshuang Zhao ; Weiping Cao ; Bing Li ; Bing-Zhong Wang</i>	
<b>A NOVEL 35-GHZ SLOT-COUPLED PATCH RECTENNA ARRAY BASED ON SIW CAVITY FOR WPT</b> .....	1554
<i>Wei Huang ; Jin-Xin Du ; Guan-Nan Tan ; Xue-Xia Yang</i>	
<b>SUBARRAY PARTITION DESIGN OF RECEIVING ANTENNA FOR MICROWAVE POWER TRANSMISSION</b> .....	1557
<i>Y. Yao ; L. W. Song ; Y. L. Liu</i>	
<b>A NOVEL MULTIPLE BAND WIRELESS POWER HARVESTING ANTENNA</b> .....	1560
<i>Congwen Jiang ; Xueguan Liu ; Changrong Liu ; Huiping Guo ; Ji Yan ; Yi Liu</i>	
<b>FIELD-CIRCUIT CO-SIMULATION FOR SCHOTTKY DIODE RECTIFIER BASED ON MULTIPHYSICS</b> .....	1563
<i>Hongzheng Zeng ; Yuzhu Tang ; Xing Chen</i>	
<b>CIRCULARLY POLARIZED FILTERING ANTENNA WITH COMPLEX IMPEDANCE</b> .....	1566
<i>Yazhou Dong ; Steven Gao ; Shi-Wei Dong ; Ying Wang ; Shuo Liu</i>	
<b>RETRO-REFLECTIVE BEAMFORMING FOR WIRELESS POWER TRANSMISSION BASED ON HARMONIC MIXING SCHEME</b> .....	1569
<i>Xuemei Cao ; Han Cheng ; Xin Wang ; Mingyu Lu</i>	
<b>MICROWAVE POWER TRANSMISSION IN FULLY ENCLOSED SPACE USING RECONFIGURABLE REFLECTING ELEMENTS</b> .....	1572
<i>Xueqi Wang ; Xin Wang ; Mingyu Lu</i>	
<b>RECTENNA DESIGN WITH HIGH EFFICIENCY AT LOWER INPUT POWER DENSITY FOR SENSOR NETWORK APPLICATIONS</b> .....	1575
<i>Jun-Hui Ou ; Zhe Chen ; Jun-Yu Pan ; Yun Fei Cao ; Shi-Wei Dong ; Xiu Yin Zhang</i>	

<b>SWITCHABLE METAMATERIAL ABSORBER AND REFLECTOR USING PIN DIODES .....</b>	<b>1578</b>
<i>Rui Zhao ; Linda Shao ; Weiren Zhu</i>	
<b>A 4.7-GHZ BROADBAND ASYMMETRICAL DOHERTY POWER AMPLIFIER IN HYBRID INTEGRATED PROCESS.....</b>	<b>1581</b>
<i>Xinghui Wei ; Wenhua Chen ; Long Chen ; Zhenghe Feng</i>	
<b>IMPLEMENTATION AND TEST OF A KA-BAND SPATIAL-WAVEGUIDE POWER AMPLIFIER .....</b>	<b>1584</b>
<i>Yu Liu ; Jun Xu ; Mengxia Yu ; Maoyan Wang</i>	
<b>KU BAND 12-WAY RADIAL POWER COMBINER DESIGN FOR SATELLITE COMMUNICATION.....</b>	<b>1587</b>
<i>Jiang-An Han ; Jin-Xin Li ; Liang Zhang ; Feng-Jun Chen ; Xian-Hu Luo ; Ke-Fan Chen ; Xu Cheng</i>	
<b>COMPACT AND BROADBAND DIRECTIONAL COUPLER FOR HIGH-POWER APPLICATIONS.....</b>	<b>1590</b>
<i>Xin Wei ; Dongdong Li ; Zheng-Bin Wang ; Hua-Mei Zhang</i>	
<b>STUDY OF A HIGH FREQUENCY SYSTEM FOR SUB-TERAHERTZ SHEET BEAM TRAVELLING WAVE TUBES .....</b>	<b>1593</b>
<i>G. X. Shu ; J. X. Wang ; G. Liu ; L. H. Cao ; H. Xiong ; W. L. He ; Z. F. Qian</i>	
<b>INVESTIGATION OF HELIX-GROOVE RECTANGULAR WAVEGUIDE SLOW WAVE STRUCTURE FOR SHEET-BEAM TRAVELING WAVE TUBE.....</b>	<b>1596</b>
<i>Zhicheng Su ; Zhigang Lu ; Ruidong Wen ; Weihua Ge ; Tao Tang ; Yubin Gong</i>	
<b>ANALYSIS AND DESIGN OF HIGH-DIRECTIVITY BRANCH COUPLER ON W-BAND .....</b>	<b>1599</b>
<i>Haixin Yao ; Huijun Sun</i>	
<b>A K BAND THREE-WAY POWER COMBINER BASED ON THE H-PLANE WAVEGUIDE.....</b>	<b>1602</b>
<i>Changzi Xie ; Yueling Liu ; Jichang He</i>	
<b>SIMULTANEOUS FREQUENCY AND COUPLING COEFFICIENT RECONFIGURABLE HYBRID COUPLER.....</b>	<b>1605</b>
<i>Q. Z. Quan ; Y. F. Pan ; Y. X. Li ; S. Y. Zheng</i>	
<b>SIZE-REDUCED AND BROADBAND RING HYBRID COUPLER WITH ARBITRARY POWER DIVISION USING PHASE INVERTERS.....</b>	<b>1608</b>
<i>Cuilin Zhong ; Yahui Liu</i>	
<b>DESIGN OF COMPACT C-BAND ONE INTO EIGHT-WAY EQUAL WILKINSON POWER DIVIDER.....</b>	<b>1611</b>
<i>Amjad Altaf ; Chen Xi ; Umar Dilshad ; Jungang Miao</i>	
<b>RESEARCH ON HIGH DIRECTIONAL WAVEGUIDE DIRECTIONAL COUPLER.....</b>	<b>1614</b>
<i>Nan Hu ; Qingsheng Zeng ; Wenqing Xie ; Shuang Liu ; Jianrui Liu ; Yanbin Luo ; Yong Wu ; Lixin Zhao ; Changyong Yuan</i>	
<b>WIDEBAND COUPLER BASED ON WIDE-WALL COUPLING HALF-MODE RIDGE SUBSTRATE INTEGRATED WAVEGUIDE.....</b>	<b>1617</b>
<i>Feng Zhang ; Guang Hua</i>	
<b>MILLIMETER-WAVE RADIOMETER IC AND MODULE FOR PASSIVE IMAGING .....</b>	<b>1620</b>
<i>Xiaojun Bi ; Jian Li ; Zirui Wang ; Shiming Guan</i>	
<b>A 24.5-27 GHZ GAN POWER AMPLIFIER MMIC WITH 4 W MAXIMUM SATURATION OUTPUT POWER .....</b>	<b>1623</b>
<i>Xiaodong Tong ; Shiyong Zhang ; Penghui Zheng ; Jianxing Xu ; Rong Wang</i>	
<b>A COMPACT KA-BAND GAAS PHEMT MMIC NOTCH FILTERING POWER AMPLIFIER.....</b>	<b>1626</b>
<i>Yun Long Jiang ; Yong Fan</i>	
<b>A KA-BAND POWER AMPLIFIER MMIC UTILIZING AN ADVANCED 100NM GAN HEMT TECHNOLOGY .....</b>	<b>1629</b>
<i>Aimin Wu ; Wenhua Chen ; Chuan Shen ; Li Kang</i>	
<b>NON-E-BEAM ALGAN/GAN HEMTS WITH <math>f_{MAX}</math> OF 206 GHZ FOR MASS PRODUCTION .....</b>	<b>1632</b>
<i>Jianxing Xu ; Shiyong Zhang ; Penghui Zheng ; Rong Wang ; Xiaodong Tong</i>	
<b>FREQUENCY CONVERTERS NONLINEAR MODELING USING X PARAMETER.....</b>	<b>1635</b>
<i>Juncai Lv ; Zhipeng Li ; Li Kang ; Rong Zeng ; Xuejiao Huang</i>	
<b>MEASUREMENT OF WIDEBAND PULSE SIGNAL BASED ON FREQUENCY-DOMAIN APPROACH.....</b>	<b>1638</b>
<i>Yanan Zhang ; Xin Wang ; Mingyu Lu</i>	
<b>RESEARCH ON THE APPLICATION OF THE AUTOMATIC TEST SYSTEM OF DIGITAL T/R MODULE .....</b>	<b>1641</b>
<i>Han Liu ; Xin Zheng ; Guang Yang ; Can Lin</i>	
<b>PHASE NOISE SUPPRESSION FOR ANTENNA NEAR-FIELD MEASUREMENT AT SUBMILLIMETER WAVE BAND.....</b>	<b>1644</b>
<i>Zixuan Feng ; Yinliang Diao ; Xiaoling Deng</i>	
<b>BLIND CALIBRATION METHOD OF GAIN AND TIME-SKEW MISMATCHES IN TIME-INTERLEAVED ADCS.....</b>	<b>1647</b>
<i>Yongtao Qiu ; Jie Zhou ; Youjiang Liu ; Tao Cao</i>	
<b>DESIGN OF ULTRA-WIDEBAND LARGE DYNAMIC RANGE ALC SYSTEM .....</b>	<b>1650</b>
<i>Yubin Yang ; Qinglong Zhang ; Chunqing Xu</i>	
<b>Author Index</b>	