TABLE OF CONTENTS

Plenary Session Invited Papers

| PS-001 | Inkjet-Printed Nanotechnology-enabled RFID, Internet of Things and "Zero-Power" Wireless Sensor Nodes | N/A | Prof. Manos M. Tentzeris USA |
| PS-002 | Design of Metamaterial Absorbers for the Radar Cross Section Reduction of Targets and Antennas | N/A | Prof. Agostino Monorchio Italy |
| PS-003 | Research Advances in Millimeter Wave and THz Band Integrated Circuits and Systems | N/A | Prof. Wei Hong China |
| PS-004 | Quantification Design of System-level Electromagnetic Compatibility | N/A | Prof. Donglin Su China |
| PS-005 | Reflectarray Development for Improving NLOS Radio Channel | N/A | Prof. Qiang Chen Japan |

Session 1 EMC/EMI

| A6-01 | Analysis of Electromagnetic Interference on Control Cables in the Nuclear Plant | 1 | Huiqi Li, Yongyong Liu, Hong yin, Yanli Zhang, and Likun Xiong China |
| A6-04 | EMC Filtering Design of biasing circuit for broadband active device | 5 | Anhui Liang China |
| A6-05 | New EBG Structure for Ultra-WidebandSimultaneous Switching Noise Suppression | 9 | Cheng juan Li, Lili Fang, and Xuetian Wang China |
| A6-06 | Simulation Of The Electric Field Shielding Effectiveness In The Range of 10kHz-1GHz | 12 | Guan Wang, Mang He, Tianwen Wang, Yanhui Guo, Xihong Ye, and Xiaowen Xu China |
| A6-09 | EMI Filter Design In Pspice | 16 | Zhi-cheng Wang, Xiaowen Xu, and Zhi-yong Lu China |
| A6-10 | Solving Signal Integrity Problem of LVDS Buffer with SigXplorer | 19 | Zhi-cheng Wang, Xiaowen Xu, and Cong Li China |
| A6-12 | Electromagnetic Optimization of PCB Differential-Via for Signal Integrity Using Analysis Of Variance | N/A | Yalin Guan, and Shilei Zhou China |
| A6-13 | The Use of Taguchi Method for Robust Optimization of PCB Differential-Via | 26 | Yalin Guan, and Shilei Zhou China |

Session 2 EM, antenna, and microwave measurement

| A4-02 | Advanced Optimization For Subarray Structure In Electronic Warfare Evironment | 30 | Yang Zhitaio, Hu Hang, Wang Dan, and Qin Weicheng China |
| A4-05 | Raw Data Compress Method of Synthetic Aperture Radar Based on Compressive Sensing | 35 | |
Session 3  Frequency selective surfaces and radomes
A8-01 A Frequency Selective Surface Radome Using a Coupled Resonator Filter………………..52
Han Min, He Mang, Sun Houjun, Zhang Kang, and Zhao Guoqiang  China
A8-02 Ultra-wideband Frequency Selective Surface at K and Ka Band………………………….55
Liang Bing-yuan, Xue Zheng-hui, Li Wei-ming, and Ren Wu  China
A8-03 Analysis of Cassegrain Antenna by using a Dichroic Sub-reflector……………………….58
Han Min, He Mang, Sun Houjun, Zhao Guoqiang, and Cheng Hang  China
A23-01 A novel design of a spherical conformal array antenna via transformation optics…………61
Lei Tang, Zhan Zhang, Yujia Ruan, Junhong Wang, and Shouliang Li  China
A23-02 A Conformal Antenna Design Using Transformation Optics Theory……………………65
Yujia Ruan, Zhan Zhang, Lei Tang, Shouliang Li, and Junhong Wang  China

Session 4  LTCC components and circuitry
A10-01 A 8-output Compact Broadband Wilkinson Power Divider in LTCC Technology………….69
Ruobing Liu, Fengwen Gao, Bingyao Liu, and Houjun Sun  China
A10-02 Design of Three-Dimensional Balun Based on LTCC Technology…………………………73
Luo Mengjia, Ma Rui, Sun Houjun, and Zheng Pei  China
A10-03 A 35 GHz reduced-size bandpass filter based on SIW in LTCC technology…………………77
Bingyao Liu, Jianming Zhou, Ruobing Liu, Qiong Wu, and Kunpeng Zhang  China
A10-04 Design of LTCC Multi-Channel Flip-Chip Interconnect structure based on Factorial Analysis…81
Fengwen Gao, Ruobing Liu, Bo Yuan, and Xin Lv  China.

Session 5  Microwave & millimeter wave systems (1)
A13-01 Design of a Ka-band five ways waveguide power divider…………………………………85
Chuanfang Zhang, and Qiang Gu  China
A13-03 Design of a power amplifier based on GaN HEMTs at Ka-band……………………………..88
Dechun Guo, Chao Yue, Xiaobin Luo, Lijie Zhou, and Shunyong Du  China
A13-05 Design of a W-band Sub-harmonic Mixer based on quartz substrates………………………92
Dechun Guo, Lijie Zhou, Weihua Yu, Jinchao Mou, and Chao Yue  China
A13-06 Design and Performance of a 2-D Terahertz Imaging System………………………………96
Yu Sun, Weidong Hu, Chenchen Mu, Hongran Wang, and Xin Lv  China
A13-07 Design and Simulation of a W-band Two-way Power Divider Based on Substrate Integrated
Session 6  Microwave & millimeter wave systems (2)

A4-01  A Bandpass Filter Based on Novel CRLH TL Transmission Line Structure…………………………N/A
Xin-Kun Tang, Ya-Lin Guan, Shi-Lei Zhou, Li Bin-Wan, and Tengfei Dou    China

A13-12  A Novel Millimeter-Wave Transition from Waveguide to Microstrip Line…………………………111
Yu Xiao, Hao Luo, and Houjun Sun    China

A13-13  The Distribution of Electromagnetic Field In Plasma………………………………………………115
Liu Ye, Ren Wu, Xue Zhenghui, and Li Weiming    China

A16-10  Design and Simulation of a W-Band Broadband Low Noise Amplifier…………………………119
Wang Yawei, and Yu Weihua    China

A19-01  A 1.8-2.6 GHz Mixer for TD-SCDMA/LTE/LTE-A Application in 0.18-µm CMOS…………………..123
Fei Liu, Fengyi Huang, Youming Zhang, and Xusheng Tang    China

A22-01  Analysis and Synthesis of UWB Filters and Shapers in Time Domain……………………………..127
S.L. Chernyshev    Russia

Session 7  Microstrip antennas, arrays, and circuits (1)

A14-01  Determination of Location of Circular Microstrip Antenna Feed point due to Effective Feed
Criteria……………………………………………………………………………………………131
N.Yu. Fadeeva, and V.N. Mitrokhin    Russia

A14-02  A Novel Differentially Fed Microstrip Integrated-Antenna-Filter……………………………………134
Xing Chen, Bin Li, Meng Zhang, and Xin-Qing Sheng    China

A14-03  Beam Forming Networks for Triangular Grid Multibeam Array………………………………………..137
Shi Lei, and Liu Jian    China

A14-04  Design and Simulation of a kind of Ku-band Waveguide Horn Antenna Array with HFSS………142
Peng Yu, Li Ping, Zhu Yong-zhong, Hu Wei-dong, and Zhou Jia-yi    China

A14-05  A Dual-band U-slot Microstrip Antenna with Dual-feed and Double-layer…………………………146
Pingyuan Zhou, Xihong Ye, and Mang He    China

A14-06  A Dual-Polarization Aperture Coupled Microstrip Antenna for Ka-band……………………………..149
ChengRan Dai, Xiao Yu, and HouJun Sun    China

A14-07  Design of a 6-18 GHz UWB Conformal Antipodal Vivaldi Antenna Array……………………………..153
Li-Ming Si, Hai-Bo Tang, Xiaozhong Shui, Hong-Da Lu, Yong Liu, Ya-Fen Ge, and Xin Lv    China

Session 8  Microstrip antennas, arrays, and circuits (2)

A14-08  A Compact Tri-Band Printed Antenna Design…………………………………………………………157
Xiao-Hui Wang, and Hong-Xing Zheng    China
**Session 9  Microstrip antennas, arrays, and circuits (3)**

A14-09  Design for Microstrip Leaky Wave Antenna Based on SRR Structure..........................160  
Hongran Wang, Weidong Hu, Yu Sun, Lijing Dong, Yunji He, and Liming Si  China

A14-10  Sierpinski Carpet Fractal Antenna in Third Iteration.............................................164  
Nan Lu, and Xiaowen Xu  China

A14-11  Design of A Ka-band Microstrip quasi-Yagi antenna array based on LTCC substrate ....168  
Jingchao Du, Ning Chen, and Qiuyuan Lu  China

A14-12  Leaky Wave Antenna with Non-Uniform CRLH Transmission Line for Wide Range Space Field Coverage in Mobile Communication System.................................................172  
Haijian Hou, Junhong Wang, and Zheng Li  China

A14-13  Design of Ultra-wideband Printed Log-periodic Dipole Antenna................................176  
Yong Liu, Xiaozhong Shui, Hong-Da Lu, Li-Ming Si, Ya-Fen Ge, and Xin Lv  China

A14-14  Circularly Polarized Microstrip Antenna with Two Asymmetric Circular Slots for RFID Application.................................................................184  
Xing Ying Huo, Jun Hong Wang, and Mei E Chen  China

A14-16  Design of X band low phase noise dielectric resonator oscillator............................188  
Lin Kejia, Ren Wu, XueZhenghui, and Li Weiming  China

A14-18  The design for S band Microstrip and wide-band patch antenna...............................193  
Jie Fang, Hongmin Gao, Kunpeng Zhang, Guanglai Ge, and Junkai Gao  China

A14-20  W-band Monopulse Radar Antenna............................................................................196  
Caitao Jiang, Guoqiang Zhao, Houjun Sun, and Xin Lv  China

A14-21  Koch-based circular CPW fed dual UWB antenna.................................................200  
Ntawangaheza jean de Dieu, and Wenbiao Zhou  China

A14-22  A Dual Band Monopole Microstrip Printed Antenna for WLAN (2.4/5.2/5.8 GHz) Application.........................................................................................204  
Toyobur Rahman, Yan Zhaowen, and Hacene Youcef  China

A14-23  Analysis of Angle Error Extraction Method Based on a Reconfigurable Antenna Array with Asymmetric Structure.........................................................208  
N. Yang, G. Q. Zhao, and H. J. Sun  China

**Session 10  Microstrip antennas, arrays, and circuits (4)**

A4-03  Design of a Ku-Band Broadband U-Slot Microstrip Antenna.....................................212  
Qiong Wu, Liang Shi, and Guoqiang Zhao  China

A4-06  Research of Dual-Polarized Monopulse Microstrip Antenna Array.............................216  
Lin Zheng, Li Wei-ming, Xue Zheng-hui, and Ren Wu  China

A12-01  Metamaterials Applied in Half-wave Dipole Antenna.............................................220  
Cao Meng, Xue Zheng-hui, Ren Wu, and Li Wei-ming  China
A12-02 On the Dispersion Property of a Plain-weave Textile Metamaterial ........................................... 224
Hou-min Li, Bin Li, David Branscomb, Lloyd Riggs, and Gwynedd Thomas  China/USA
A14-24 Dual-Polarized and Multiple-Layers Micro-strip Patch Antenna for Satellite Mobile
Communication ................................................................................................................................. 227
Han Guodong, Chang Lixin, Gao Chong, and Liu Ning  China
A18-02 Reconfigurable Array Based on Dual-Polarization Multilayer Micro-strip Patch Antenna for
Polarization Detector Applications ................................................................................................. 232
N. Yang, G. Q. Zhao, L. Shi, and H. J. Sun  China
A24-04 Realization of Linear Polarization Reconfiguration for Mobile Satcom in Ku-band .......... 236
Huanju Wang, Houjun Sun, Zhiyong Lu, and Wei Wu  China

Session 11  Mobile and small antennas
A15-01 An Internal Hexa-Band Antenna for 4G Mobile Phone Application ......................................... 239
Luofen Wang, Wenbin Lin, and Guangli Yang  China
A15-02 A high gain wideband Minkowski T-probe coupled patch antenna ........................................ 242
Ntawangaheza Jean de Dieu, and Wenbiao Zhou  China
A15-03 Design of an Electrically Small and Near-3D Omnidirectional Loop Antenna for UHF Band
RFID Tag ....................................................................................................................................... 246
Li Li, Linchuan Wang, Xiaoli Yin, and Shufang Li  China
A15-04 High gain L twin probe fed patch antenna for dual-band WLAN2.4/5GHz &WIMAX
applications .................................................................................................................................... 249
Ntawangaheza Jean de Dieu, and Wenbiao Zhou  China
A15-05 Internal Small-Size Antenna Design for Mobile Phone Applications ...................................... 252
Weiye Li, and Wenbin Lin  China
A22-03 Design of a Miniaturized Ultra-wideband Compound Spiral Antenna ................................. 255
Na Liu, Pengfei Yang, and Weijiang Wang  China

Session 12  MMIC techniques & VLSI
A16-02 A 20MHz Continuous-Time Gm-C Filter with Source Degeneration Linearization
Technique ........................................................................................................................................ 259
Ya-Fen Ge, Sheng-Xu Wang, Si-Heng Zhu, Kui Zhang, Li-Ming Si, Yong Liu, and Xin Lv  China
A16-03 A Kind of Third-harmonic Circuits Based on GaAs PHEMT at W-band ................................. 262
Xiaobin Luo, Chao Yue, Shunyong Du, Lijie Zhou, and Xin Lv  China
A16-04 Design of 8mm Ka-band broadband LNA ............................................................................. 266
Dechun Guo, Shunyong Du, Xiaobin Luo, Chao Yue, and Lijie Zhou  China
A16-05 A Low-Power Decibel-Linear CMOS Automatic Gain Control ............................................... 270
Xin Lv, Junyu Shi, Jingjing Zou, Si-Heng Zhu, Ya-Fen Ge, Yong Liu, and Li-Ming Si  China
A16-06 A Low-power-consumption Linear-in-dB CMOS VGA ......................................................... 274
Ya-Fen Ge, Kui Zhang, Si-Heng Zhu, Sheng-Xu Wang, Yong Liu, Li-Ming Si, and Xin Lv  China
A16-09 A W-Band Single-Ended Downconversion/Upconversion Gate Mixer in InP HEMT
Session 13  Phased-array antennas

A4-04  Novel Design of 4 Elements GPS Antenna Array with UC-EBG Structure
Qin Haichao, Su Donglin, and Zeng Xiaojun  China

A17-01  Profile Reduction of the Reflectarray Antenna by Multi-Feeding Technique
Fan Wu, and Junhong Wang  China

A17-02  Analysis of two-dimensional wide-angle scanning phased array antenna element in
Ka-band
Xiaoling Wang, and Chuanfang Zhang  China

A17-03  Experimental Study of a Dual-Polarized Ultra-Wideband Phased Array
Xiao-Fei Liu, Xian-Song Guo, Lei Sun, and Tie Gao  China

A17-04  Waveguide-Based Dome Lens Antenna with Quasioptimal Shape Generating Line
V.I. Litun, and V.N. Mitrokhin  Russia

Session 14  EM scattering, diffraction, and RCS

A20-01  Angular correlation functions of intensities scattered from two-layered randomly rough
surface
Pengju Yang, Lixin Guo, and Chungang Jia  China

A20-02  Time Reversal DORT and MUSIC Methods for Extended Targets Detection and Imaging
Xiao-Fei Liu, Bing-Zhong Wang, and Le-Wei Li  China

A20-04  Low RCS Microstrip Antenna with Uniplanar Compact Electromagnetic Bandgap
Substrate
Jie Xu, Meie Chen, and Junhong Wang  China

A9-01  The Analysis of Polarimetric InSAR System Key Parameters Based on Vegetation
Estimation
Fan Wang, Aifang Liu, Guangfeng Qiu, and Youquan Lin  China

A9-02  W-band Target Characteristics Extraction Algorithms
Liu Fang, and Zhao Guoqiang  China

Session 15  Terahertz techniques

A21-01  2D Simulations of Kink phenomenon inInAlAs/InGaAs/InP HEMTs
Zhiming Wang, Xiaobin Luo, Weihua Yu, and XinLv  China

A21-02  Design of a 200GHz Sub-Harmonic MixerWith Planar Schottky Diodes
Chengcheng Wan, Tong fei, Ling Chen, Weihua Yu, and Xin Lv  China

A21-03  0.5 THz Integrated Antipodal Curvilinearly Tapered Slot Antenna with Circular
Polarization
Yong Liu, Kai Zhou, Hong-Da Lu, Zi-Jian Gao, Li-Ming Si, Ya-Fen Ge, and Xin Lv  China

A21-05  Double-Layer 90° Corrugated Terahertz Horn Antenna Based on MEMS Technology
Yong Liu, Hong-Da Lu, Zi-Jian Gao, Kai Zhou, Li-Ming Si, Ya-Fen Ge, and Xin Lv  China
Session 16  Computational Electromagnetics

B4-01 A Versatile Material Model for the FDTD Simulation of Graphene .........................................345
Di Xu, Cheng Deng, Hai Lin, and Helin Yang China
B4-02 Study on Coupling Fields of Cavity with Slot by LOD-FDTD Numerical Method ..................349
Cai Junfeng, Yi Jianzheng, Xuan Zhaolong, and Fu Xiaozhong China
B11-01 GPU+COW Parallel Computing System to Accelerate the FDTD Method ...............................353
Zhang Xue-yuan, Xue Zheng-hui, Zhang Bo, Ren Wu, Li Weiming, and Cao Jia China
B11-02 Parallelization of the Multilevel Fast Multipole Algorithm Using the OpenMP and VALU Acceleration .................................................................357
Jinbo Liu, and Mang He China
B12-01 TDIE-MOT Solvers Based on PMCHWT and Muller Equations for Transient Scattering by 2D Dielectric Objects .................................................................361
X. Y. Guo, and M. Y. Xia China

Session 17  Other relevant topics (1)

A6-11 Method of Spaceborne Transmitter Protection for Electromagnetic Interference Problem ....365
Zhi-cheng Wang, Xiaowen Xu, and Zhi-yong Lu China
A22-05 Short-Distance Detecting and Imaging System With UWB Chirp Signal ...............................368
Fenggui Wang, Chuanfa Yang, Xiuwei Yang, and Zhongmin Wang China
A24-01 Taguchi Method for Analysing the C Shape DGS’ Frequency Characteristic ..........................372
Xin-Kun Tang, Ya-Lin Guan, Shi-Lei Zhou, Li Bin-Wan, and Teng Fei-Dou China
A24-02 Performance Analysis of DAGC Diversity Combining in Coherent DS/FFH System ...............376
Ce-lun Liu, Long-bo Han, Xu Su, and Xiao-jie Wen China
C3-01 A SPI FLASH-based FPGA Dynamic Reconfiguration Method ..................................................379
Mubing Li, Min Xie, Guoman Liu, and Xiaochao Liu China
C3-03 Design of high-speed data playback board based on AD9739 ..................................................383
Xiaochao Liu, Guoman Liu, Mubing Li, and Yu Zhang China

Session 18  Other relevant topics (2)

C6-01 Analysis of the DC Bias Phenomenon by the Harmonic Balance Method Based on the Electromagnetic Coupling Model .................................................................387
Xiaoxin Zhang, Huiqi Li, Yang Liu, Xiaojun Zhao, Zhiguang Cheng
C7-01   A New ISAR Range Alignment Method via Minimum Tsallis Entropy…………………………………391
        Hu Moufa, Gao Lei, and Zhang Zhiyong    China

C7-02   GA-Based Optimal Allocation of Sensor Resources………………………………………………….395
        Jin-xia Chen, De-feng Chen, and Yan Wang China

C8-01   Analysis of Bistatic Location of Optimal Station Distribution Under Different Geometric
        Distribution....................................................................................................................................398
        Sun Shenglian, Cai Zhenxiang, and Li Chao China

C8-02   Performance Comparison on Network-Wide Time Synchronization Approaches in Wireless
        Sensor Networks................................................................................................................................401
        Rong Fan, Wenlong Xu, Lili Wu, and Li Han China

C8-03   Radio simulation training platform design based on components........................................405
        Bin Pei, Hui Han, Yunsheng Yang, Wu Zhang, and Shengtao Wang China