WEP1A
Transmission Line Elements

WEP1A-01: Dark and Bright Solutions in Left-Handed Nonlinear Transmission Line Metamaterials.
S. Gupta, C. Caloz, École Polytechnique de Montréal, Montréal, Canada

WEP1A-02: Characterizing and Modeling Conductor-Backed CPW Periodic Bandstop Filter with Miniaturized Size
K. Chan, MEDs Technologies Pte Ltd, Singapore, Singapore; S. Xiao, J. Ma, University of Electronic Science and Technology of China, Chengdu, China; K. Ma, K. Yeo, M. Do, Nanyang Technological University, Singapore

WEP1B
Passive Circuit Elements

WEP1B-01: Compact-Size Directional Coupler for Mobile RFID Reader
J. Jung, K. Nae, J.P. Thakur, H. Oh, Y. Seong, J. Park, Kookmin University, Seoul, South Korea

WEP1B-02: HTS Microstrip Hybrid Couplers for Radio Astronomy C-Band Receivers
G. Zhang, M.J. Lancaster, Emerging Device Technologies, Birmingham, UK; N. Roddis, Jodrell Bank Observatory, Cheshire, UK

WEP1B-03: Realization of Ultracompact Planar Microstrip Branch-Line Couplers with High-Impedance Open Stubs
C. Tang, M. Chen, J. Wu, National Chung Cheng University, Chiayi, Taiwan

WEP1B-04: Design of a Compact Microwave Six-Port Vector Voltmeter for UWB Applications
M.E. Bialkowski, A.M. Abbosh, J. Swayn, The University of Queensland, Brisbane, Australia

WEP1B-05: A Parallel-Crossed H-Plane Waveguide Eight-Port Hybrid and its Application to a Planar Magic Tee
K. Toda, I. Ohta, University of Hyogo, Himeji, Japan; M. Kishihara, Okayama Prefectural University, Soja, Japan

WEP1B-06: Miniaturized Ultra-Wideband Self-Complementary Antennas using High-Permittivity Thick-Resin Material
A. Saitou, C. Quan, K. Watanabe, YKC Corp., Musashi-Murayama, Japan; K. Aoki, K. Honjo, The University of Electro-Communications, Chofu, Japan

WEP1B-07: A Six-Port Receiver's Analog Front-End of Reduced Size Based on a Multilayer Layout
A. Koelpin, S. Winter, R. Weigel, Friedrich-Alexander University of Erlangen-Nuremberg, Erlangen, Germany

WEP1B-08: LTCC Broadside Coupler Design with Branch Lines for Enhanced Performances
Y. Noh, M. Uhm, I. Yom, Electronics and Telecommunications Research Institute (ETRI), Daejeon, Korea, South

WEP1B-09: Novel Reconfigurable Isolator
T. Furuta, A. Fukuda, H. Okazaki, S. Narahashi, NTT DoCoMo Inc., Yokosuka-shi, Japan

WEP1B-10: Compacted Ka-Band CMOS Rat-Race Hybrid Using Synthesized Transmission Lines
S. Wang, C. C. Tzuang, National Taiwan University, Taipei, Taiwan

WEP1B-11: Flexible RF Switch-PIN Diodes using Single-Crystal Si-Nanomembranes
H. Yuan, Z. Ma, Univ. of Wisconsin-Madison, Madison, USA; G.K. Celler, Soitec, Peabody, USA

WEP1B-12: A Fully Micromachined W–Band Coplanar Waveguide to Rectangular Waveguide Transition
Y. Li, B. Pan, M.M. Tentzeris, J. Papapolymerou, GEDC, School of Electrical and Computer Engineering, Atlanta, USA

WEP1C
Active and Integrated Filters

WEP1C-01: Piezoelectric Transducer-Controlled Reconfigurable Dual-Mode Switchable Bandpass Filter
W. Tu, S. Hsu, K. Chang, Texas A&M University, College Station, USA

WEP1C-02: LTCC Multilayer Coupled Strip-Resonator Filters
Y. Zhang, K.A. Zaki, University of Maryland, College Park, USA

WEP1C-03: Nonlinear Matched Reflection-Mode Bandstop Filters for Frequency-Selective Limiting Applications
P. Phudpong, I.C. Hunter, University of Leeds, Leeds, UK

WEP1D
HF/VHF/UHF Technologies and Applications

WEP1D-01: Low-Pass Active Filter enabling DVB-H/T and GSM Standard Coexistence
D. Lo Hine Tong, R. Lababidi, F. Baron, A. Louzir, Thomson R & D France, Cesson-Sevigne, France

WEP1D-02: Adjacent-Channel Power Contributions of Silicon MOSFET Switches in RF and Microwave Systems
R. H. Caverly, Villanova University, Villanova, USA

WEP1D-03: High-Frequency Power Amplifiers without Ground
R. L. Campbell, Cascade Microtech, Inc, Beaverton, USA

WEP1D-04: 0.25 µm CMOS Dual Feedback Wideband UHF Low-Noise Amplifier
I.I. Lo, O. Boric-Lubecke, V. Lubecke, University of Hawaii at Manoa, Honolulu, USA

WEP1E
Power-Amplifier Devices and Integrated Circuits

WEP1E-01: High-Gain, High-Efficiency 12 V pHEMT Power Transistors for WiMAX Applications
M. Bokatius, M. Miller, Freescale Semiconductor Inc., Tempe, USA

WEP1E-02: Overcoming pHEMT Linearity Dependence on Fundamental Input Tuning by Digital Predistortion
M. Bokatius, M. Lefevre, M. Miller, Freescale Semiconductor Inc., Tempe, USA

WEP1E-03: Ka-Band SiGe HBT Power Amplifier for Single-Chip T/R Module Applications
P. J. Riemer, J. S. Humble, J. F. Prairie, J. D. Coker, B. A. Randall, B. K. Gilbert, E. S. Daniel, Mayo Clinic, Rochester, USA

WEP1E-04: 20 W LDMOS Power Amplifier IC for Linear Driver Application
R. Bagger, P. Andersson, Infineon Technologies Nordic AB, Kista, Sweden; C. D. Shih, Infineon Technologies North America Corp., Tempe, USA

WEP1E-05: A 6–18 GHz Push-Pull Power Amplifier with Wideband Even-Order Distortion Cancellation in LCP Module
A. C. Chen, A. H. Pham, University of California Davis, Davis, USA; R. E. Leoni, Raytheon Co., Andover, USA

WEP1E-06: Linearity of X-Band Class-E Power Amplifiers in a Digital Polar Transmitter
N. Wang, N.D. Lopez, V. Yousefzadeh, J. Hoversten, D. Maksimovic, Z. Popović, University of Colorado, Boulder, USA

WEP1E-07: A 2.4 GHz GaAs-HBT Class-E MMIC Amplifier with 65 % PAE
C. Meliani, M. Rudolph, P. Kurpas, W. Heinrich, Ferdinand-Braun-Institut (FBH), Berlin, Germany; L. Schmidt, C. Rheinfelder, Ubidyne GmbH, Ulm, Germany

WEP1E-08: H-Bridge Class-D Power Amplifiers for Digital Pulse Modulation Transmitters
T. Hung, J. Rode, L. E. Larson, P.M. Asbeck, University of California, San Diego, LA Jolla, USA

WEP1E-09: Variable-Voltage Class-E Power Amplifiers
M. Acar, A. J. Annema, B. Nauta, University of Twente, Enschede, The Netherlands

WEP1F
High-Power Amplifiers

WEP1F-01: Applications of GaN HEMTs and SiC MESFETs in High-Efficiency Class-E Power Amplifier Design for WCDMA Applications
Y. Lee, Y. Jeong, Pohang University of Science and Technology, Pohang, Republic of Korea

WEP1F-02: Negative Group Delay Circuit for Feed-Forward Amplifier
H. Noto, K. Yamauchi, M. Nakayama, Y. Isota, Mitsubishi Electric Corp., Kamakura, Japan

WEP1F-03: Analogue Dynamic Supply Voltage L-Band GaN High Power Amplifier with Improvement of Efficiency and Linearity
K. Matsunaga, M. Tanomura, T. Nakayama, Y. Ando, H. Miyamoto, H. Shimawaki, NEC Corp., Otsu, Japan

WEP1F-04: A 2.5 Watt, 3.3–3.9 GHz Power Amplifier for WiMAX Applications using a GaN HEMT in a Small Surface-Mount Package
S.M. Wood, A. Prejs, R.S. Pengelly, W. Pribble, Cree Inc.; E.J. Crescenzi, Jr., Central Coast Microwave Design

WEP1F-05: Cross Postdistortion Balanced Power Amplifier
H. Choi, Y. Jeong, Chonbuk National University, Jeonju, Republic of Korea; J. Kenny, Georgia Institute of Technology, Atlanta, USA; C. Kim, Sewon Teletech Inc., Anyang, Republic of Korea

WEP2A
Millimeter Wave and Terahertz Components and Technologies

WEP2A-01: An Analogue, 4:2 MUX/DEMUX Front-End MIMIC for Wireless 60 GHz Multiple Antenna Transceivers
S. Koch, M. Uno, Sony Deutschland GmbH; I. Kallfass, R. Weber, A. Leuther, M. Schlechtweg, Fraunhofer Inst. Phys.

WEP2A-02: Measurement of Terahertz Refractive Index for Plasmon Waveguides
H. Yasuda, NICT, Koganei, Japan

WEP2A-03: A 90 nm CMOS Broadband and Miniature Q-Band Balanced Medium Power Amplifier
J. Tsai, Y. Lee, T. Huang, C. Yu, J. Chern, National Taiwan University, Taipei, Taiwan

WEP2A-04: A Miniature 38–48 GHz MMIC Subharmonic Transmitter with Postdistortion Linearization
J. Tsai, H. Yang, T. Huang, National Taiwan University, Taipei, Taiwan

WEP2A-05: Effective Medium Theory for Carbon Nanotube Composites and their Potential Applications as Metamaterials
S.M. Mikki, A.A. Kishk, University of Mississippi, University, USA

WEP2A-06: Silicon Micromachined Multiplier Utilizing Heterostructure Barrier Varactor Diode
P.L. Kirby, Y. Li, J. Papapolymerou, Georgia Inst. of Tech., Atlanta, USA; Q. Xiao, Univ. of Virginia, Charlottesville, USA; J. Hesler, Virginia Diodes Inc., Charlottesville, USA

WEP2A-07: Microfabricated Left-Handed Transmission Line Operating at 50 GHz
C. Qin, A. Kozyrev, A. Karbassi, V. Joshkin, D.W. van der Weide, University of Wisconsin-Madison, Madison, USA

WEP2A-08: Simulations of Quasi-Optical Output Systems for High-Power Gyrotrons based on the Electric Field Integral Equation
O. Prinz, Forschungszentrum Karlsruhe, Karlsruhe, Germany; M. Thumm, University Karlsruhe, Karlsruhe, Germany

WEP2A-09: Integrated 585 GHz Hot-Electron Mixers Based on Annular Slot Antennas
L. Liu, Q. Xiao, A.W. Lichtenberger, R.M. Weikle, II, University of Virginia, Charlottesville, USA

WEP2A-10: Balanced Low-Loss Ka-Band μ-Coaxial Hybrids
K.J. Vanhille, D.S. Filipović, Z. Popović, University of Colorado; C. Nichols, Rohm & Haas Elec Mat'ls, LLC; D.L. Fontaine, BAE Systems; W. Wilkins, E. Daniel, Mayo Foundation

WEP2A-11: A Reflection Based, Pulsed THz Imaging System with 1 mm Spatial Resolution
Z.D. Taylor, R.S. Singh, E.R. Brown, J.E. Bjarnason, M.P. Hanson, A.C. Gossard, University of California, Santa Barbara, Santa Barbara, USA

WEP2A-12: Integrated Microbolometer Antenna Characterization from 95 to 650 GHz
C.R. Dietlein, J.D. Chisum, M.D. Ramirez, Z. Popović, University of Colorado, Boulder, USA; E.N. Grossman, National Institute of Standards and Technology, Boulder, USA; A. Luukanen, VTT Tech Res Centre of Finland, Espoo, Finland

WEP2B
Packaging, Interconnects, MCMs, and Hybrid Manufacturing

WEP2B-01: A 30 GHz Waveguide-to-Microstrip-Transition
F.J. Schmueckle, W. Heinrich, Ferdinand-Braun-Inst für Hochstfrequenztechnik, Berlin, Germany; W. Gross, K. Hirche, M. Rostewitz, Tesat Spacecom GmbH & Co. KG, Backnang, Germany

WEP2B-02: Integrated Passive Technology for Wireless Basestation Applications
L. Liu, C. Ramiah, Q. Li, S. Pacheco, S. Kuo, M. Miller, S. Marshall, M. Watts, P. Piel, Freescale Semiconductor Inc., Tempe, USA

WEP2C
Instrumentation and Measurement Techniques

WEP2C-01: Broadband Characterization of Multilayer Dielectric Thin Films
J.C. Booth, NIST; N.D. Orloff, M. Murakami, I. Takeuchi, University of Maryland; J. Mateu, Univ. Politecna de Cataluna

WEP2C-02: Characterization of Multiwalled Carbon Nanotube (MWNT) Papers using X-Band Waveguides
H. Xin, L. Wang, University of Arizona, Tucson, USA; D. Carnahan, Nano-Lab Inc., Newton, USA

WEP2C-03: Microstrip Resonator Technique for Measuring Dielectric Permittivity of Liquid Solvents and for Solution Sensing
K. Saeed, A.C. Guyette, I.C. Hunter, R.D. Pollard, University of Leeds, Leeds, UK

WEP2C-04: High Power Microwave Device Temperature Measurement — Methodology and Applications for Pulsed Devices
M. Mahalingam, E. Mares, W. Brakensiek, K. Burger, C. Hsu, Freescale Semiconductor Inc., Tempe, USA

WEP2C-05: Gaining Advanced Insight in the Phase Stability of Comb Generators using a Large-Signal Network Analyzer
G. Paillonc y, F. Verbeyst, M. Vanden Bossche, NMDG Engineering bvba, Bornem, Belgium

WEP2D
Smart Antennas, Spatial Power Combining, and Phased Arrays

WEP2D-01: A Tunable Quasilumped Microstrip Coupler and RF Applications
F. Ferrero, G. Jacquemod, University of Nice, Valbonne, France

WEP2D-02: Active Integrated Antenna Based on Planar Dielectric Resonator with Tuning Ferroelectric Varactor
O. Y. Buslov, A. A. Golovkov, V. N. Keis, A. B. Kozyrev, S. V. Krasilnikov, T. B. Samoilova, A.Y. Shimko; D. Ginley, T. Kaydanova

WEP2D-03: Analysis and Experimental Study of Wideband Dielectric Resonator Antenna Arrays for Waveguide-Based Spatial Power Combining
Y. Zhang, A. A. Kishk, A. B. Yakovlev, A. W. Glisson, The University of Mississippi, University, USA

WEP2D-04: A Low Profile Twin-PIFA Laptop Reconfigurable Multiband Antenna for Switchable and Fixed Services Wireless Applications
C. Zhang, S. Yang, S. Lee, S. M. El-Ghazaly, A. E. Fathy, Univ. of Tennessee, Knoxville, USA; H. K. Pan, V. K. Nair, Intel Corp., Hillsboro, USA

WEP2E
Radars and Broadband Communication Systems

WEP2E-01: Balancing Target Noise Against Thermal Noise — On the Optimum Beamwidth for Mean Radar Reflectivity Estimation
F. Gerbl, E. M. Biebl, Technische Universität München, München, Germany

WEP2E-02: Concurrent Circuit-Level/System-Level Optimization of a 24 GHz Mixer for Automotive Applications Using a Hybrid Electromagnetic/Statistical Technique
F.P. Placentino, A. Scarponi, Univ. of Perugia, Perugia, Italy; D. Staiculescu, S. Nikolaou, M.M. Tentzeris, Georgia Inst. of Tech., Atlanta, USA; L.J. Martin, Motorola, Plantation, USA

WEP2F
Wireless and Cellular Communication Systems

WEP2F-01: Design of an Overmoded-Waveguide Directional Antenna for use in In-Building Ventilation Duct Wireless Networks
J.C. Hess, B.E. Henty, D.D. Stancil, Carnegie Mellon University, Pittsburgh, USA

WEP2F-02: Adaptive Linearization of Frequency Doubler Using DGS
S.M. Kang, K.H. Koo, University of Incheon, Incheon, S. Korea; S.W. Nam, Seoul National University, Seoul, S. Korea

WEP2F-03: Distributed Body-Worn Transceiver System with the Use of Electrotextile Antennas
Y. Ouyang, W.J. Chappell, Purdue University, West Lafayette, USA

WEP2G
Sensors and Sensor Systems

WEP2G-01: Noninvasive Determination of Temperature Trajectories During a Defrosting Process using Microwave Radiometry
P. Cresson, L. Dubois, J.P. Pribetich, IEMN Université de Lille, Villeneuve d'Ascq, France

WEP2G-02: A 5.8 GHz Local Positioning and Communication System
R. Mosshammer, M. Huemer, University of Erlangen-Nuremberg, Erlangen, Germany; R. Szumny, K. Kurek, Warsaw University of Technology, Warsaw, Poland; J. Huttner, R. Gierlich, Siemens AG, Munich, Germany

WEP2G-03: Sensor Nodes for Doppler Radar Measurements of Life Signs
I. Mostafanezhad, B. Park, O. Boric-Lubecke, V. Lubecke, A. Host-Madsen, University of Hawaii at Manoa, Honolulu, USA