

CAD/CAM

Chen, Honglei and Rick Gentile

"Spatial Multiplexing for 5G Wireless Communications," No. 8, p. 114.

Vye, David

"Network Synthesis Wizard Automates Interactive Matching-Circuit Design," No. 11, p. 96.

COMPONENTS/SUBSYSTEMS

Daryoush, Afshin S., Ajay Poddar, Tianchi Sun and Ulrich L. Rohde

"Optoelectronic Oscillators: Recent and Emerging Trends," No. 10, p. 58.

Kotyukov, A., Y. Ivanov and A. Nikonov

"Precise Frequency Sources Meeting the 5G Holdover Time Interval Error Requirement," No. 5, p. 128.

Wong, James, Andrei Grebennikov, Naoki Watanabe and Eiji Mochida

"200 W High Efficiency 1.8 to 2.7 GHz GaN HEMT Doherty Amplifiers for Cellular," No. 11, p. 66.

COVER FEATURES

Chaudhari, Ashish, David Squires and Paul Tilghman

"Colosseum: A Battleground for AI Let Loose on the RF Spectrum," No. 9, p. 22.

Corman, David W.

"All-Silicon Active Antennas for High Performance 5G/SATCOM Terminals," No. 2, p. 44.

Glynn, Stuart, Robert Smith, Liam Devlin, Andy Dearn and Graham Pearson

"Design of a Single Chip Front-End Module for 29 GHz 5G," No. 4, p. 22.

Heuel, Steffen and Sherif Ahmed

"The Future of Automotive Radar Testing with Radar Echo Generators," No. 3, p. 26.

Hindle, Patrick

"Antenna Technologies for the Future," No. 1, p. 24.

Hindle, Patrick

"Diamonds are a High-Power Engineer's Best Friend," No. 6, p. 34.

RFHIC

"Commercialization of High Performance GaN on Diamond Amplifiers," No. 6, p. 36.

Ejckam, Felix, Ty Mitchell, Kris Kong and Paul Saunier, Akash Systems Inc.

"Ultra-Cool GaN on Diamond Power Amplifiers for SATCOM," No. 6, p. 36.

Smiths Interconnect

"Ultra-Small High-Power, Diamond Rf Resistives™," No. 6, p. 40.

Res-Net Microwave

"CVD Diamond Passive Components," No. 6, p. 42.

Loutfy, Kevin

"Aluminum-Diamond Metal-Matrix Heat Spreaders for GaN Devices," No. 6, p. 44.

Mumford, Richard

"Diamond-Silver Composite Packaging for GaN Space Applications," No. 6, p. 46.

Hindle, Patrick

"Design Platforms Maximize Performance and Reduce Time-to-Market," No. 7, p. 22.

Altair

"Altair FEKO, Part of HyperWorks Platform," No. 7, p. 22.

ANSYS

"ANSYS Electronics Desktop Platform," No. 7, p. 26.

Dassault Systemes, SIMULIA CST

"CST STUDIO SUITE Complete Multi-Domain and Multiphysics Solution," No. 7, p. 30.

Keysight Technologies

"Keysight PathWave Design-More Creativity, Less Busywork," No. 7, p. 32.

NI AWR Group

"National Instruments AWR Design Environment Platform," No. 7, p. 34.

Microwave Journal

"SAW/BAW New Market Entrants Offer New Approaches," No. 10, p. 22.

Aichele, Dave

"XBAW RF Filter Blazing Into Higher Frequency Spectrum," No. 10, p. 22.

Harvey, Gerry

"Enabling Design of Next Generation RF Filters," No. 10, p. 28.

Hammond, Bob

"Infinite Synthesized Networks Deliver RF Filter Design Tools for 5G," No. 10, p. 32.

Pasternack

"5G Update: Standards Emerge, Accelerating 5G Deployment," No. 5, p. 24.

Pasternack Enterprises

"Defense Opportunities and Challenges in 2019," No. 11, p. 22.

Peterson, Bror and David Schnauffer

"5G Fixed Wireless Access Array and RF Front-End Trade-Offs," No. 2, p. 22.

Sanchez, Ignacio Montiel

"European Cooperation in Defence Capabilities and Technology Research: Avoiding the Tower of Babel Effect," No. 8, p. 22.

Santra, Avik, Ismail Nasr and Julie Kim

"Reinventing Radar: The Power of 4D Sensing," No. 12, p. 26.

Spexarth, Matt

"The Future of Automotive Radar Testing with Modular Solutions," No. 3, p. 22.

Suh, Jungik

"The Future of Automotive Radar Testing with Integrated Simulation Software," No. 3, p. 34.

DESIGN

Brunning, J. and R. Rayit

"Designing a Broadband, Highly Efficient, GaN RF Power Amplifier," No. 6, p. 72.

Coonrod, John

"Microstrip Defected Ground Structures Without Radiation Loss Using Multilayer PCB Technology," No. 2, p. 88.

Coonrod, John

"Evaluating PCB Plated Through Holes for 5G Applications," No. 12, p. 60.

Ge, Chun-Ping, Yong-Qin Liu and Yan Dou

"A Compact Microstrip Lowpass Filter with Harmonic Suppression," No. 5, p. 80.

Ghaderi, Amirhossein and Saeed Roshani

"L-Band Microstrip Lowpass Filter with Small Size and Excellent Harmonic Suppression," No. 10, p. 100.

Hagensen, Morten, Kristian Lotz, Kim Vienberg and Jesper Trier

"Design of an Ultra-Wideband Compline 'Brick Wall' Filter," No. 7, p. 58.

Li, Jie, Jia-Bei Zhao, Jia-Jun Liang, Lin-Lin Zhong and Jing-Song Hong

"Metamaterial-Based Planar Compact MIMO Antenna with Low Mutual Coupling," No. 5, p. 116.

Li, Qirong, Songbai He, Zhiqiang Dai and Weimin Shi

"Design of Broadband High Efficiency Power Amplifiers Based on Series Continuous Modes," No. 5, p. 66.

Qi, Yuhua, Zhao Shen and Rulong He

"New Symbolically Defined Model for InP Heterojunction Bipolar Transistors," No. 7, p. 72.

Setty, Radha and Brandon Kaplan

"Combining MMIC Reflectionless Filters to Create UWB Bandpass Filters," No. 3, p. 60.

Song, Bin, Songbai He, Jun Peng and Wenman Zou

"Time Domain Channel Compensation Suitable for Wideband Digital Predistortion," No. 3, p. 74.

Tojeira, Chris

"Designing Ultra-Wideband Small Form Factor RF Signal Recorders," No. 11, p. 54.

Xi, Wang, Muhammad Asif, Tong Zhihang, Jin Zhi, Su Yongbo, ZhaoHua, Ding Wuchang and Ding Peng

"Push-Push Oscillators Operating at G-Band Using InP DHT Technology," No. 9, p. 66.

Xin, Lei

"Two-Layer Stacked Microstrip Cylindrical Conformal Antenna Array With Cross Snowflake Fractal Patches," No. 3, p. 88.

Zhao, Shiwei and Xiaosen Dai

"A High Linearity Doherty Power Amplifier Using Tunable Loaded Capacitor CMRC," No. 8, p. 108.

Zhao, Shiwei, Zhenfeng Yin and Yuehang Xu

"Linearity Improved Doherty Power Amplifier Using Ferroelectric Ceramics," No. 9, p. 58.

Zhu, Yu, Kaijun Song, Shunying Hu and Yong Fan

"UWB 16-Way Hybrid Coaxial/Ring Cavity Power Divider with Low Insertion Loss," No. 5, p. 88.

DEVICES

Boles, Tim and Ferdinando Ioccolano

"RF GaN on Si Meets CMOS Manufacturing," No. 5, p. 140.

Clements, Matthew S., Steve E. Avery and Richard Barber

"Design of Highly Linear FET Resistive Mixers," No. 4, p. 76.

Danzilio, David

"Advanced GaAs Integration for Single Chip mmWave Front-Ends," No. 5, p. 148.

Grayzel, Alfred

"A Field-Effect Transistor That Avoids Pinch-Off," No. 10, p. 90.

Gronefeld, Andreas

"Ultra-Low Phase Noise Oscillators with Attosecond Jitter," No. 4, p. 58.

Nandivada, Venkat and Rohit Ramnath

"Meeting High-Power and High Frequency Challenges with Adhesives and Potting Compounds," No. 1, p. 96.

Skyworks Solutions, Inc.

"Why V_{peak} is the Most Critical Aperture Tuner Parameter," No. 8, p. 128.

Thomas, Ben

"5G Brings New RF Challenges for Handsets," No. 10, p. 80.

Zhang, Jincan, Bo Liu, Leiming Zhang, Ligong Sun, Yuming Zhang, Hongliang Lu and Yimen Zhang

"A 20 GHz Low Phase Noise Push-Push VCO in InGaP GaAs HBT Technology," No. 5, p. 102.

"A Ka-Band Low Phase Noise VCO Implemented in 1 um GaAs HBT Technology," No. 11, p. 82.

Zhang, Jincan, Bo Liu, Leiming Zhang, Jinchuan Wang, Qing Hua, Yuming Zhang, Hongliang Lu and Yimen Zhang

"A Ka-Band Low Phase Noise VCO Implemented in 1 um GaAs HBT Technology," No. 11, p. 82.

EUROPEAN MICROWAVES CONFERENCE

Hindle, Patrick

"Attending European Microwave Week 2018," No. 8, p. 62.

Palma, Magdalena Salazar, Jose Ignacio Alonso Montes and Ivar Bazy

"Welcome to EuMW 2018: Find Your Passion for Microwaves in Madrid," No. 8, p. 56.

EuMW Photo Gallery

No. 11, p. 52.

GUEST EDITORIALS

Kapoor, Abhishek

"Using 24 GHz Radar to Speed Commercial UAV Adoption," No. 1, p. 44.

Mini-Circuits

"Mini-Circuits Mourns the Passing of Founder, Harvey Kaylie," No. 7, p. 56.

INSTRUMENTS/MEASUREMENTS

Derat, Benoit, Corbett Rowell, Adam Tankielun and Sebastian Schmitz

"Software and Hardware Near-Field Transformations for 5G OTA Testing," No. 8, p. 96.

Heuel, Steffen, Tobias Koppel and Sherif Ahmed

"Evaluating 77 to 79 GHz Automotive Radar and Radome Emblems," No. 1, p. 70.

Hilton, Richard and Steve Dudkiewicz

"Overcoming the Challenge of mmWave, On-Wafer Load-Pull Measurements for 5G," No. 6, p. 84.

Jiang, Zhengbo, Wei Hong, Nianzu Zhang and Chao Yu

"Progress and Challenges of Test Technologies for 5G," No. 1, p. 80.

Martens, Jon

"Measuring Differential Noise Figure," No. 9, p. 78.

OPINION

Carlson, Doug

"Breaking Through the Cost Barrier for Phased Arrays," No. 11, p. 104.

Hindle, Patrick

"Let's Talk 6G," No. 12, p. 22.

Links, Cees

"5G or Wi-Fi 6 (.11ax)?," No. 12, p. 84.

PRODUCT FEATURES

Analog Devices Inc.

"High-Power Silicon Switches for Massive MIMO Front-Ends," No. 8, p. 146.

Analog Devices Inc.

"55 MHz to 15 GHz, Single Chip Synthesizer Delivers Low Phase Noise, Spurs," No. 10, p. 118.

Anritsu

"Scalable Coaxial Components Reach 110 GHz," No. 10, p. 120.

ANSYS

"Large Target, Far-Field Radar Signature Analysis," No. 1, p. 112.

AtianTecRF

"Multi-Path Simulator Simultaneously Tests Two SATCOM Links," No. 2, p. 100.

AtianTecRF

"New Connectors Expand Cable Assemblies," No. 3, p. 30.

Anokiwave

"Ku- and Ka-Band Intelligent Gain Blocks," No. 7, p. 88.

API Technologies-Weinschel

"40 GHz Programmable Attenuator Has 31.5 dB Range in 0.5 dB Steps," No. 11, p. 124.

AVX Corp.

"High Performance Lowpass Filter Series Covers 700 MHz to 3.8 GHz," No. 9, p. 60.

AVX Corp.

"Thin Film Resistors Extend Frequency Coverage in Small Form Factors," No. 11, p. 112.

AWR Group, NI

"Synthesizing MIMO Antennas for Compact Devices," No. 1, p. 104.

Boonton

"Compact, Lightweight, RF Peak Power Meter," No. 6, p. 104.

Carmel Instruments LLC

"Ultra-Low Noise PXle Synthesizers," No. 9, p. 96.

Ceyear

"Affordable Signal/Spectrum Analyzers, From 4 to 67 GHz," No. 2, p. 110.

COMSOL Inc.

"Efficient EM Simulation Using 2D Axisymmetric Modeling," No. 7, p. 94.

Custom MMIC

"Low Phase Noise Amplifiers Improve Receiver and Radar Performance," No. 5, p. 168.

Custom MMIC

"Ultra-Low Noise MMIC Amplifiers Improve Receiver Dynamic Range," No. 12, p. 92.

dB Control Corp.

"4 kW, 7.5 to 18 GHz, Dual Tube TWTA," No. 11, p. 124.

Elite RF

"All-in-One RF Test System," No. 3, p. 110.

Empower RF Systems

"COTS PA Design Passes MIL-STD-810," No. 4, p. 106.

Exodus Advanced Communications

"40 W, 6 to 18 GHz, GaAs FET Power Amplifier," No. 2, p. 106.

Exodus Advanced Communications

"Liquid Cooled, 40 W, Ka-Band Solid-State PA," No. 9, p. 58.

Guzik Technical Enterprises

"Digital Equalization for mmWave Analog Up/Downconverters," No. 12, p. 102.

HUBER + SUHNER

"Enabling High-Power, Low Loss, Low-Cost Distribution for RF Energy," No. 11, p. 118.

IMST

"Multi-Channel Radar Modules for 24 GHz ISM Band," No. 2, p. 108.

IMST

"Virtual Model Inspector for 3D EM Solver," No. 10, p. 122.

Infineon Technologies

"Wideband LDMOS Driver IC Covers 575 to 960 MHz Cellular Bands," No. 4, p. 94.

INGUN USA Inc.

"RF Probe for Ultra-Low Temperature Applications," No. 4, p. 90.

Insulated Wire Inc.

"Low Attenuation, Phase Stable, 40 GHz Cable Assemblies," No. 3, p. 30.

Kaelus

"Portable Cable and Antenna Analyzer Covering 560 to 2750 MHz," No. 7, p. 100.

Keysight Technologies Inc.

"Integrating Design and Test Workflow," No. 3, p. 104.

Keysight Technologies Inc.

"Oscilloscope with 110 GHz Front-End Eliminates Frequency Interleaving," No. 10, p. 110.

KP Performance Antennas

"Dual Sector Antennas Cover Bands from 2 Through 6 GHz," No. 8, p. 150.

LadyBug Technologies

"RF Power Sensor Delivers Performance and Value," No. 1, p. 128.

Marki Microwave

"GaAs PHEMT Amplifiers Optimized for Mixers," No. 4, p. 104.

Marki Microwave

"Mixer Vanquishes Up-Converted Spurs in Difficult Frequency Plans," No. 10, p. 118.

Maury Microwave Corp.

"T&M Instrument Amplifiers Cover 700 MHz to 26.5 GHz," No. 8, p. 142.

MCV Microwave

"Ultra-Low PIM and 1 kW Cavity Filters," No. 5, p. 184.

MCV Microwave

"LC Filters for Aerospace and Defense," No. 9, p. 60.

Mercury Systems

"Compact, Modular Microelectronics for Next-Generation Precision-Guided Weapons," No. 9, p. 48.

Micro Harmonics

"Low Loss E- and W-Band Isolators," No. 3, p. 120.

Milliwave Silicon Solutions Inc.

"mmWave Anechoic Chamber in a Box," No. 9, p. 100.

Mini-Circuits

"DIY Vector Network Analyzer for Universities and Hobbyists," No. 8, p. 150.

MiniRF Inc.

"5 to 1218 MHz, 8 dB Coupler with 40 dB Isolation," No. 7, p. 98.

Modelithics Inc.

"A Substrate-Scalable SMA Connector Model," No. 1, p. 122.

Narda Safety Test Solutions GmbH

"24/7 Intruder Detection Using Real-Time Spectrum Analyzer," No. 9, p. 54.

Pasternack

"Waveguide Directional Crossguide Couplers Cover 5.85 to 33 GHz Bands," No. 3, p. 118.

PolyPhasor

"Low PIM Surge Arrestors with 4.3-10 Connectors," No. 6, p. 104.

pSemi Corp.

"9 kHz to 50 GHz Single-Chip SOI Digital Step Attenuator," No. 10, p. 114.

Qorvo Inc.

"1.8 kW GaN Transistor for L-Band Avionics," No. 6, p. 94.

Qorvo Inc.

"GaN Front-End Module for X-Band Phased Arrays," No. 8, p. 138.

Qualcomm Technologies Inc.

"First mmWave Antenna Module for 5G Smartphones," No. 12, p. 40.

Quantum Microwave

"Speed Waveguide Plumbing. Reduce Leakage," No. 5, p. 186.

Radiall

"High Performance, Cost-Effective VNA Test Cables," No. 4, p. 102.

Radiall

"50 GHz Terminated SP4T and SP6T Coaxial Switches," No. 12, p. 102.

Remote Sensing Solutions

"Digital Subsystems Enable Software-Defined Radar," No. 1, p. 130.

RF Innovation

"95 dBm IIP3 Switch Boosts LTE ULCA Performance," No. 4, p. 98.

RIGOL

"Interactive Debugging in Multi-Domain Environments," No. 5, p. 174.

Rogers Corp.

"New Laminates Lower PIM for Base Station Antennas," No. 9, p. 90.

Rohde & Schwarz

"Oscilloscopes Capture Longer Time Periods," No. 3, p. 100.

Rohde & Schwarz

"Signal Generators Combine Performance and Usability," No. 7, p. 82.

Rohde & Schwarz

"New Spectrum Analyzer Family Ideal for 5G NR Signal Analysis," No. 12, p. 96.

Rosenberger

"VNA Test Port Adapters to 70 GHz," No. 5, p. 64.

SAF Tehnika

"Handheld Spectrum Analyzer for Distributed Antenna Systems," No. 9, p. 102.

SAGE Millimeter Inc.

"Integrated Dual Polarized Scaler Horn Antenna Covers 24 - 42 GHz," No. 5, p. 158.

Sector Microwave Industries

"Covave: A Hybrid Coax-Waveguide Switch," No. 8, p. 151.

Signal Hound

"Spectrum Analyzer Offers Unrivalled Value," No. 9, p. 58.

Skyworks Solutions Inc.

"Antenna Tuning Switches for LTE-A and 5G," No. 9, p. 104.

Spectrum Instrumentation GmbH

"Next Generation 16-Bit Digitizers," No. 1, p. 118.

Spectrum Instrumentation GmbH

"General Purpose Digitizers Now 50% Faster," No. 6, p. 100.

SPINNER GmbH

"V-, E- and W-Band Rotary Joints with Dielectric Waveguides," No. 3, p. 116.

SPINNER GmbH

"S-Band Rotary Joints for Space Applications," No. 5, p. 180.

Space Labs

"20 dBm, 40 to 60 GHz Power Amplifier," No. 6, p. 106.

Telegartner Karl Gartner GmbH

"Type 2.2-5 Coax Connector Fits in Tight Spaces," No. 8, p. 134.

ThinkRF

"Down-Converter Extends Cellular Equipment Coverage to mmWave," No. 2, p. 112.

Vaunix

"200 MHz to 6 GHz, 4-Channel Attenuator with 120 dB Range," No. 5, p. 188.

Werlatone

"Compact, Accurate, Digital In-Line Power Meters," No. 5, p. 182.

Xilinx Inc.

"RF-SOCs for 5G Wireless, Cable Remote-PHY and Radar," No. 1, p. 132.

Z-Communications Inc.

"16 GHz Phase-Locked Oscillator With -82 dBc/Hc Phase Noise at 10 kHz Offset," No. 11, p. 126.

SPECIAL REPORTS

DeTomas, Sheri

"Navigating the 5G NR Standards," No. 12, p. 72.

Duncan, Helen

"The Spanish Microwave Industry: Specialists in Space, Defense & Telecoms," No. 8, p. 76.

Love, Janine

"EDI CON China 2018 Preview," No. 2, p. 84.

Love, Janine

"EDI CON USA Comes to California!," No. 9, p. 108.

Sheffres, Carl

"Celebrating 60 Years," No. 1, p. 20.

SUPPLEMENT FEATURES

Anwar, Asif

"Strong Defense Outlook Offers Continued Growth for RF Technologies," No. 9, p. 20.

Barnett, Daniel

"Challenges Designing 110 GHz Coax Cable Assemblies," No. 3, p. 12.

Benson, Keith

"Beamforming ICs Simplify Phased Array Antennas Design," No. 9, p. 30.

Birch, Dan

"Coaxial Cable Assemblies Adapt to Emerging mmWave Applications," No. 3, p. 18.

Hindle, Patrick

"Drone Detection and Counter Measures Take the World Stage," No. 9, p. 6.

"Rohde & Schwarz: Meeting the Challenge of Detecting and Countering Drones," No. 9, p. 6.

"Aaronia AARTOS: Protecting the World Stage," No. 9, p. 11.

Li, Xiangmin, Zhuang Kang and Liang Jia

"A Monolithic U-Band InP HBT Stacked Power Amplifier with On-Chip Active Biasing," No. 9, p. 40.

Pino, Paul

"Shielding Effectiveness of Microwave Cable Assemblies," No. 3, p. 6.

Stinson, Dylan

"Accurate VNA Measurements Start with Quality Cables," No. 3, p. 24.