

# IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION

A PUBLICATION OF THE IEEE ANTENNAS AND PROPAGATION SOCIETY



FEBRUARY 2024

VOLUME 72

NUMBER 2

IETPAK

(ISSN 0018-926X)

---

## COMMUNICATIONS

- [Dual-Wideband Dual-Frequency Antenna With Large Frequency Ratio for 5G Applications](#) ..... J. N. Hao, L. Y. Feng, W. S. Ji, and Y. Liu
- [New Cosine-q Pattern Formulas for the Analysis of Elongated-Aperture Antennas](#) ..... J. Wang and Y. Rahmat-Samii
- [A High-Selectivity Filtering Antenna Based on Dual-Post Coaxial Resonators](#) ..... J. Ma, K.-R. Xiang, and F.-C. Chen
- [Self-Decoupling, Shared-Aperture, Eight-Antenna MIMO Array With MIMO-SAR Reduction](#) ..... Y. Fang, Y. Jia, J.-Q. Zhu, Y. Liu, and J. An
- [Analysis, Design, and Measurement of Continuous Frequency-Scanning Polarization-Rotating Antenna](#) ..... S.-L. Chen, Y. Liu, M. Li, B. Jones, and Y. J. Guo
- [A Wideband High-Gain Electrochromic Antenna With Variable Color and Infrared Emissivity](#) ..... Z. Zhang, L. Zhang, D. Chen, W. Zhang, and Y. Peng
- [Broadband Reflecting Luneburg Lenses Based on Bed-of-Nails Metasurfaces](#) ..... C. Bilitos, X. Morvan, E. Martini, R. Sauleau, S. Maci, and D. González-Ovejero
- [GPS-Integrated RFID Antenna With AMC Backing for IoT-Based Sensing and Tracking Applications](#) ..... C. Bajaj, D. K. Upadhyay, S. Kumar, and B. K. Kanaujia
- [Single-Cut Phaseless Near-Field Measurements Using Two Probes](#) ..... F. Rodríguez Varela, J. Calatayud Maeso, X. Sun, B. Galocha Iragüen, and M. Sierra Castañer
- [An SISL Differentially Fed Frequency Reconfigurable Antenna Without Passive Components for the Bias Circuit](#) ..... Y. Luo, Z. Wu, Q. Z. Zhang, N. Yan, and K. Ma
- [Efficient Phase-Only Symmetric Pattern Synthesis for Linear and Circular Planar Arrays via Phase Perturbation in Low-Dimensional Space](#) ..... W. Zhang, Y. Peng, and Z. Zhang
- [Tri-Mode Dual-Patch MIMO Antenna With High Isolation for 5G Terminal Applications](#) ..... L. Qian, X. Chen, H. Zhou, H. Wang, and M. Hou
- [Ultra-Wideband Low-RCS Circularly Polarized Antennas Realized by Bilayer Polarization Conversion Metasurfaces and Novel Feeding Networks](#) ..... X. Gao, L. Y. He, S. J. Yin, C. H. Xue, G. F. Wang, X. M. Xie, H. Xiong, Q. Cheng, and T. J. Cui
- [A Dual-Band Leaky Wave Antenna Fed by Dual-Mode-Composite Waveguide for Microwave and Millimeter-Wave Applications](#) ..... L. Wang, Y. Li, K. Ding, J. Wang, and B. Ai
- [Frequency-Scanning Array Based on Dual-Band Filters With Wide Scanning Range and Flat Gain](#) ..... X. Guo, L. Huang, and W. Wu
- [Ultra-Compact 60-GHz Near-Field Focusing Configuration Using SIW Slot Array Loaded by Transmission Coding Metasurface Lens](#) ..... R. Ebrahimzadeh, S. E. Hosseininejad, B. Zakeri, A. Darvish, M. Khalily, and R. Tafazolli
- [Dispersion Manipulation Method for Ultrahigh-Frequency Band Reconfigurable Absorbers](#) ..... H. Li, Z. Cao, Y. Xia, G. Yao, L. Miao, and J. Jiang
- [A Highly Selective Reflectarray Using ME Dipole Element With Gain-Filtering Characteristics](#) ..... Z.-Y. Xu, X. Zhang, Y. Li, T. Yuan, and Z. Quan
- [Grating-Lobe Mitigation Using Parasitic Scatterers and Principal Component Analysis](#) ..... A. Salmi, J. Bergman, A. Lehtovuori, J. Ala-Laurinaho, and V. Viikari
- [Cross-Band Decoupling Method for Dual-Band Aperture-Shared Antenna Array Using Metasurfaces](#) ..... J. H. Zhai, Y. F. Cao, Q. Xue, and W. Che
- [1-bit Low-Cost Electronically Reconfigurable Reflectarray and Phased Array Based on p-i-n Diodes for Dynamic Beam Scanning](#) ..... Y. Ning, S. Zhu, H. Chu, Q. Zou, C. Zhang, J. Li, P. Xiao, and G. Li
- [Bandwidth Limits of Connected Slot Arrays](#) ..... C. Monochristou, S. Xiang, M. Holm, R. Sauleau, and M. Ettorre
- [Characterization of Nematic Liquid Crystal Dielectric Properties Using Complementary FSSs Featuring Electrically Small Cell Gaps Across a Wide Sub-THz Range](#) ..... D. Kim, J. Choi, Y. Youn, S. Chang, C. Lee, W. Kim, and W. Hong
- [Digital Beamforming and Receiving Array Research Based on Rydberg Field Probes](#) ..... R. Mao, Y. Lin, Y. Fu, Y. Ma, and K. Yang
- [Dual-Polarized Band-Absorptive Frequency-Selective Rasorber With Narrow Transition Band Based on a Multilayer Open Circular Cavity Truncated Cone](#) ..... W. Yu, Y. Chen, Z. Liao, W. Wang, L. Liu, and G. Q. Luo

<a href="#"><u>Self-Tuning Locally Conformal PML Mesh Truncation for 3-D Vector Finite Element Method</u></a>	<i>O. Ozgun, M. Kuzuoglu, and R. Mittra</i>
<a href="#"><u>On the Domain Decomposition Method Preconditioning of Surface Integral Equation Formulations Solved by GMRES</u></a>	<i>V. F. Martín, M. G. Araújo, L. Landesa, F. Obelleiro, and J. M. Taboada</i>
<a href="#"><u>Two-Stage Deep Convolutional Neural Networks for DOA Estimation in Impulsive Noise</u></a>	<i>R. Cai and Q. Tian</i>
<a href="#"><u>Dielectric Patterning Method for Enhanced Monostatic Radar Cross Section (RCS) Reduction Effect Based on Dielectric-Barrier-Discharge (DBD) Plasma</u></a>	<i>J. Jung, C. Cho, M. Choi, J. Ha, S. You, H. Lee, C. Kim, I. Oh, and Y. Lee</i>
<a href="#"><u>Protected Transverse Electric Waves in Topological Dielectric Waveguides</u></a>	<i>R. Zhou, M. L. N. Chen, X. Shi, Y. Ren, Z. Yu, Y. Tian, Y. Liu, and H. Lin</i>

---