

# QEX

QEX (ISSN: 0886-8093) is published bimonthly in January, March, May, July, September, and November by the American Radio Relay League, 225 Main St., Newington, CT 06111-1400. Periodicals postage paid at Hartford, CT and at additional mailing offices.

POSTMASTER: Send address changes to: QEX, 225 Main St., Newington, CT 06111-1400 Issue No. 355

*Publisher*  
American Radio Relay League

Ronald Diehl, NQ8W  
*Editor*

### Publications Department

Becky R. Schoenfeld, W1BXY  
*Director of Publications and Editorial*

Matt Smith  
*Assistant Editor*

Matt Ali  
*Layout & Production Specialist*

David Pingree, N1NAS  
*Senior Technical Illustrator*

Brian Washing  
*Technical Illustrator*

### Advertising Information

Steve Bossert, K2GOG  
*Business Services*  
860-594-0203 – Direct  
800-243-7768 – ARRL  
860-594-4285 – Fax

### Circulation Department

Cathy Stepina  
*QEX Circulation*

### Offices

225 Main St., Newington, CT 06111-1400 USA  
Telephone: 860-594-0200  
Email: [qex@arrl.org](mailto:qex@arrl.org)

### Subscription rate for 6 print issues:

In the US: \$29  
US by First Class Mail: \$40  
International and Canada by Airmail: \$35  
ARRL members receive the digital edition of QEX as a member benefit.

In order to ensure prompt delivery, we ask that you periodically check the address information on your mailing label. If you find any inaccuracies, please contact the Circulation Department immediately. Thank you for your assistance.



Copyright © 2025 by the American Radio Relay League Inc. For permission to quote or reprint material from QEX or any ARRL publication, send a written request including the issue date (or book title), article title, page numbers, and a description of where and how you intend to use the reprinted material. Send the request to [permission@arrl.org](mailto:permission@arrl.org).

## March/April 2026

### About the Cover

Carlo Francescangeli, KJ4EGU, investigates circular polarization in a 435 MHz corner reflector produced by tilting the driven element in “Circular Polarized — 435 MHz Corner Reflector Antenna.” The resulting antenna achieves low axial ratio without the use of external phasing networks, with polarization sense selected by mechanical rotation of a single-feed structure.



### In This Issue:

2 Perspectives

3 Circular Polarized — 435 MHz Corner Reflector Antenna  
Carlo Francescangeli, KJ4EGU

9 Errata

10 Use of Coils in Amateur Radio: Magnetic Cores, Resonant Circuits, and Application of the Skin Effect  
José Luis Giordano, CE4TW

19 Using WSPR to Predict Relative Antenna Gain of Directional Antennas  
Dale Ostergaard, N3HXZ

25 Self-Paced Essays — #32 Plumbing and Cheating  
Eric P. Nichols, KL7AJ

27 Upcoming Conferences

### Index of Advertisers

ARRL.....	Cover IV
DX Engineering .....	Cover III
Kenwood Communications.....	Cover II
LDG Electronics.....	28
Pico Fox.....	18
Would you like to be the DX? .....	24