

The American Radio Relay League

The American Radio Relay League, Inc., is a noncommercial association of radio amateurs, organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and of the public welfare, for the representation of the radio amateur in legislative matters, and for the maintenance of fraternalism and a high standard of conduct.



ARRL is an incorporated association without capital stock chartered under the laws of the state of Connecticut, and is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1986. Its affairs are governed by a Board of Directors, whose voting members are elected every three years by the general membership. The officers are elected or appointed by the Directors. The League is noncommercial, and no one who could gain financially from the shaping of its affairs is eligible for membership on its Board.

"Of, by, and for the radio amateur," ARRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement as the standard-bearer in amateur affairs.

A *bona fide* interest in Amateur Radio is the only essential qualification of membership; an Amateur Radio license is not a prerequisite, although full voting membership is granted only to licensed amateurs in the US.

Membership inquiries and general correspondence should be addressed to the administrative headquarters:

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Officers

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The purpose of QEX is to:

- 1) provide a medium for the exchange of ideas and information among Amateur Radio experimenters,
- 2) document advanced technical work in the Amateur Radio field, and
- 3) support efforts to advance the state of the Amateur Radio art.

All correspondence concerning QEX should be addressed to the American Radio Relay League, 225 Main St., Newington, CT 06111 USA. Envelopes containing manuscripts and letters for publication in QEX should be marked Editor, QEX.

Both theoretical and practical technical articles are welcomed. Manuscripts should be submitted in word-processor format, if possible. We can redraw any figures as long as their content is clear. Photos should be glossy, color or black-and-white prints of at least the size they are to appear in QEX or high-resolution digital images (300 dots per inch or higher at the printed size). Further information for authors can be found on the Web at www.arrl.org/qex/ or by e-mail to qex@arrl.org.

Any opinions expressed in QEX are those of the authors, not necessarily those of the Editor or the League. While we strive to ensure all material is technically correct, authors are expected to defend their own assertions. Products mentioned are included for your information only; no endorsement is implied. Readers are cautioned to verify the availability of products before sending money to vendors.

Kazimierz "Kai" Siwiak, KE4PT

Perspectives

Communicate with the Author

Author Alan Victor, W4AMV, writes to us:

"I just came across by accident the **groups.io** that addresses QEX papers. I was happy to see so much discussion and confusion on my paper, "A Systematic Design Approach to RF Power Amplifiers," from July/August 2021 QEX. It is clear that the key takeaway concepts were missed and I understand and appreciate the commentary. The problem I have is quite simple. My email address is located in the masthead. If there are questions or concerns or clarifications required, then by all means contact the author! The (**groups.io**) moderator ... never attempted to contact me. That's too bad! ..."

Alan continues:

"My suggestion for an editorial is ... if there are questions about a topic, or you the reader need clarification, by all means contact the author. Contact information is always provided. Seems a shame this even needs mentioning!"

The QEX editor agrees with Alan. Please make every effort to include the author in your discussions, questions and comments. After all, QEX is "A Forum for Communications Experimenters." The digital edition of QEX is available on-line free of charge for all ARRL members, and the printed edition is available to subscribers.

In This Issue:

- H. Lawrence Serra, N6NC, correlates take-off angles and received angles of arrival with a make-do interferometer.
- Dr. Ulrich L. Rohde, N1UL, analyzes and measures AM and FM noise of oscillators.
- Wesley Cardone, N8QM, Characterizes the generic diode with precision for simulation using SPICE.
- Jeff Anderson, K6JCA, Corrects a common L-network misconception.
- Glen Schulz, W9IQ, in a Technical Note discusses the Smith Chart SWR circle.
- Ron Block, NR2B, discusses the single point ground panel location.
- Eric P. Nichols, KL7AJ, in his Essay Series discusses phase.
- Wojciech Kaczmarski, SP5WWP, and James T. Francis, Jr., KA1PQK, Nyquist filter.

Writing for QEX

Please continue to send in full-length QEX articles, or share a **Technical Note** of several hundred words in length plus a figure or two. QEX is edited by Kazimierz "Kai" Siwiak, KE4PT, (ksiwaki@arrl.org) and is published bimonthly. QEX is a forum for the free exchange of ideas among communications experimenters. All members can access digital editions of all four ARRL magazines: *QST*, *OTA*, *QEX*, and *NCJ* as a member benefit. The *QEX printed edition* is available at an annual subscription rate (6 issues per year) for members and non-members, see www.arrl.org/qex.

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Very kindest regards,

Kazimierz "Kai" Siwiak, KE4PT
QEX Editor