Kazimierz "Kai" Siwiak, KE4PT

Perspectives

Blurring the Analog / Digital Divide

QEX began with the December 1981 issue as *The ARRL Experimenters' Exchange*. The intent was to feature original research as well as practical construction articles of an advanced nature, while striking a balance between covering *digital* electronics — including software — and the *analog* world of receivers and transmitters. We can parse a ham station layout into an antenna system, a transceiver, and a human interface (HI). In 1981 a transceiver was comprised of analog circuitry. The HI supported analog voice, CW, and sometimes digital circuitry such as packet-radio technology, and RTTY, which by then had partially encroached into the transceiver circuitry.

Today, the software defined radio (SDR) technology is moving the dividing line between the digital and analog worlds closer to the antenna on one end, and deeper into the human interface on the other end. As we mentioned previously in *Perspectives*, you can easily build a very capable radio transceiver from readily available modules that feature analog as well as digital electronics. A personal computer serves as a digital HI for either the SDR or an analog transceiver. The digital / analog divide is blurred. Innovation and experimentation flourish at the antenna end (well covered in *QEX*) and at the HI with codes and protocols like the *WSJT-X* (also covered in *QEX*). Our authors continue to provide innovative feature articles on antenna technology, digital devices, RF circuitry, and research and development topics that are advancing the communications arts.

In This Issue

Anthony Le Cren, F4GOH / KF4GOH, builds an SWR meter with vocal output.
Rick Littlefield, K1BQT, describes a 300 watt MOSFET HF amplifier.
Eric Nichols, KL7AJ, in his Essay Series, discusses EE math and Ohm's Law.
Phil Salas, AD5X, turns a Nano VNA into a more rugged test instrument.
John C. Westmoreland, AJ6BC, builds an NMEA-based GPS time display.
Robert J Zavrel, W7SX, tabulates losses in plastics that hams often use.

Writing for *QEX*

Please keep the full-length *QEX* articles flowing in, or share a **Technical Note** of several hundred words in length plus a figure or two. *QEX* is edited by Kazimierz "Kai" Siwiak, KE4PT, (**ksiwiak@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*, *On the Air, QEX*, and *NCJ* as a member benefit. The *QEX printed edition* annual subscription rate (6 issues per year) for members and non-members is $29 in the United States. First Class mail delivery in the US is available at an annual rate of $40. For international subscribers, including those in Canada and Mexico, *QEX* printed edition can be delivered by airmail for $35 annually, see **www.arrl.org/qex**.

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Very kindest regards,
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QEX Editor