About the Cover
James L. Kretzschmar, AE7AX, uses the Texas Instruments MSP430 LaunchPad development kit to generate his own machine code program to drive the AD9850 Signal Generator module. To accomplish this task, he uses Code Composer, the Texas Instruments online Integrated Development Environment. The project was motivated by the need for a stable and precise way to generate a frequency for experimental projects in both the VLF and low HF regions of the radio spectrum.

Features

2 Perspectives
Kazimierz “Kai” Siwiak, KE4PT

3 Programming the DDS AD9850 Signal Generator Module with the Texas Instruments MSP430 Launch Pad
James L. Kretzschmar, AE7AX

8 The MSK 144 Protocol for Meteor-Scatter Communication
Steven J. Franke, K9AN and Joseph H. Taylor, K1JT

16 Summing Electromagnetic Fields and Power From and To Antennas
Robert J. Zavrel, W7SX

20 Design of a Two-Band Loaded Dipole Antennas
David Birnbaum, K2LYV

22 Weatherproofing Experiment with PL-259 Connections
John E. R. White, VA7JW

26 Technical Notes

27 Letters to the Editor

28 Upcoming Conferences

Index of Advertisers
ARRL ................................................. Cover III
DX Engineering: ................................. 15
Kenwood Communications: ............... Cover II
Nemal Electronics International, Inc: ...... 14
SteppIR ............................................ Cover IV

Copyright © 2017 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, page numbers and a description of where you intend to use the reprinted material. Send the request to the office of the Publications Manager (permission@arrl.org).