

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 06111-1494. Periodicals postage paid at Hartford, CT and at additional mailing offices.

POSTMASTER: Send address changes to: QEX, 225 Main St., Newington, CT 06111-1494 Issue No. 320

Publisher American Radio Relay League

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Subscription rate for 6 issues:

In the US: \$29;

US by First Class Mail: \$40;

International and Canada by Airmail: \$35

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May/June 2020

About the Cover

Andrew J. Anderson, VK3CV/WQ1S, shows a simple, low cost way to get on the 122 GHz amateur band using an off-the-shelf integrated transceiver chip from Silicon Radar. The chip was originally designed for proximity measurements and radar applications. It features 0.5 mW RF output power, and the receiver path includes a preamplifier with a respectable noise figure. Its voltage controlled oscillator (VCO) can easily be frequency locked to an external phase locked loop (PLL) that operates at 1900 MHz. All the 122 GHz signals are inside the chip. The design interfaces the on-chip transmit and receive antennas to external high gain antennas.



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