

### BROADBAND RF TRANSISTORS

The PowerBand™ family of high-power, wide-band RF transistors from TriQuint Semiconductor is designed for broadband radar and signal jamming applications in mobile and ground-based environments. The transistors operate across a 500 MHz- to 3 GHz- frequency range, delivering up to 50 Watts of power with a 50 percent PAE typical efficiency performance. Other features include a long battery life and less PCB area dedicated to RF and less need for thermal control than conventional transistors. The transistors can be developed to integrate gallium arsenide (GaAs), gallium nitride (GaN) or RF laterally-diffused metal oxide semiconductor (LDMOS) technologies. *TriQuint Semiconductor; Hillsboro, OR; www.tqs.com*

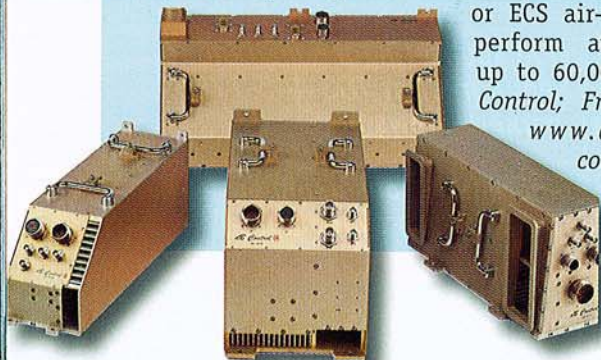
### ULTRA-BROADBAND AMPLIFIER

The CHPA0618-1-G45, a solid-state amplifier from CAP Wireless, operates across a 6- to 18-GHz frequency range with 40 Watts of output power. Designed for applications including electronic attack, the amplifier's architecture is based on the company's Spatium™ spatial combining technology that provides single-point failure protection and 3D heat dissipation, making it well-suited as an alternative to a traveling wave tube amplifier. Other features include a low noise figure, low phase noise and spurious, an infinite load VSWR without damage to the amplifier and no warm-up or turn-on lag. *CAP Wireless; Newbury Park, CA; www.capwireless.com*



### HIGH- AND LOW-BAND TRANSMITTERS

dB Control has launched four high- and low-band transmitters covering the 6- to 18-GHz and 2- to 7-GHz frequency spectrum and designed for next-generation airborne electronic attack applications. Based on microwave power module (MPM) technology, the MIL-STD-461E-compliant transmitters include a high-band transmitter providing 1,500 Watts of power, a high-band continuous wave (CW) transmitter providing 100 Watts CW or pulse power, a dual high-band transmitter providing 200 Watts per channel CW or pulse power and a single low-band transmitter providing 200 Watts CW or pulse power. The four products are RAM- or ECS air-cooled and perform at altitudes up to 60,000 feet. *dB Control; Fremont, CA; www.dbcontrol.com*



### MINIATURE PORTABLE RECEIVERS

The Picoceptor™ is DRS Technologies' newest series of miniature portable receivers. Measuring 13 cubic inches and requiring 1 Watt of power, the receiver is designed for portable SIGINT and other software-definable radio applications. The receiver features an FPGA architecture and a built-in Web-based USB 2.0 graphical user interface that attaches to thumb drives, Ethernet devices, GPS receivers and Bluetooth modules and connects to a personal computer (PC) or laptop. Its RAM and flash memory support Linux OS software. Its file transfer protocol (FTP) and telecommunications network (telnet) protocol capability make it well-suited for complex digital signal processing. *DRS Signal Solutions Inc., Gaithersburg, MD; www.drs-ss.com*



### 18-40 GHz MILLIMETER-WAVE SDVLAs

Link Microtek has introduced a line of millimeter-wave successive detection log video amplifiers (SDVLAs) manufactured by Endwave Corporation and designed for electronic intelligence (ELINT) receivers, as well as radar and missile-guidance systems. The SDVLAs come in three types, the 18- to 40-GHz ASDA-81840, the 18- to 26-GHz ASDA-81826 and the 26- to 40-GHz ASDA-82640. With a typical signal sensitivity of -65 dBm at 85 degrees Celsius and a typical dynamic range exceeding 69 dB, the amplifiers have a +/- 1.0 dB log linearity and +/- 1.5 dB frequency flatness. Hermetically sealed, they can operate in temperatures ranging from -45 to 85 degrees Celsius. *Link Microtek; Basingstoke, Hampshire, UK; www.linkmicrotek.com*

### FPGA-BASED DIGITAL RECEIVERS

Mercury Computer Systems has introduced the DCM-V5-XMC Echotek® series of digital receivers based on Virtex™-5 FPGA architecture. Ideal for COMINT and ELINT applications, the receivers are packaged in a mezzanine card format and have two 14-bit analog-to-digital converters (ADCs) at up to 250 mega samples per second (MSPS) and one 12-bit digital-to-analog (DAC) converter at up to 2.3 giga samples per second (GSPS). The units are available either with a Virtex-5 SX95T or LX155T FPGA and each comes with QDR-II-SRAM and DDR-II-SDRAM memory chips, the latter using a 312.5-MHz, 32-bit-wide link to the FPGA for a 2.5-GB/s bandwidth. The convection-cooled receivers include two high-speed serial XMC connectors and can be used in temperatures ranging from 0 to 40 degrees Celsius. *Mercury Computer Systems; Chelmsford, MA; www.mc.com*

