

## New Products

include low insertion loss, high isolation and high linearity for improved data throughput. **Skyworks Solutions Inc., Woburn, MA (781) 376-3000, [www.skyworksinc.com](http://www.skyworksinc.com).**

## Amplifiers

### RF Amplifier MMICs



Richardson RFPD Inc. announced off-the-shelf availability for a complete set of key building-block RF amplifiers, each of which has been designed specifically for enhanced performance in demanding applications, such as 3G/4G wireless communications systems. The product line is based on advanced semiconductor technologies, including InGaP HBT and Enhanced-Mode GaAs PHEMT (E-PHEMT), providing a superior combination of high dynamic range, low noise figure and low intermodulation distortion relative to P1dB. Applications include macrocell down to picocell and femtocell base station transmitter and receiver heads and RF repeaters.

**Freescale Semiconductor distributor Richardson RFPD, LaFox, IL (630) 208-2700, [www.richardsonrfpd.com](http://www.richardsonrfpd.com).**

### Push-pull Amplifier

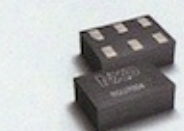


The ZHL-132LM-75+ is a high performance, push-pull amplifier featuring low second- and third-order distortion products across its 40 to 1300

MHz bandwidth. Designed for a 6 V/256 mA typical power supply, with F connectors in/out, it is a high value, low cost solution providing a 14 dB gain for CATV, instrumentation, and many other applications at VHF, UHF, and lower L-Band frequencies. The rugged, aluminum alloy case measures 3.75" x 2" x 0.80"

**Mini-Circuits, Brooklyn, NY (718) 934-4500, [www.minicircuits.com](http://www.minicircuits.com).**

### Low Noise Amplifiers



As the industry's first GPS LNAs to dynamically suppress strong cellular, Bluetooth and WLAN transmit signals, the

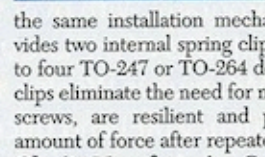
NXP BGU700x family offers the best reception for weak GPS signals, delivering an improvement of 10 dB or better IP3 under -40 to -20 dBm jamming conditions, while the noise figure remains below 1 dB. Requiring only two exter-

nal components, the BGU700x LNAs save up to 50 percent in PCB size and 10 percent in component cost. The NXP BGU700x/BGU8007 series use adaptive biasing to immediately detect any output power from jammers, and compensate by temporarily increasing the current. As a result, optimal GPS signal reception is maintained for as long as possible. Each device in the BGU700x/BGU8007 series requires only one input matching inductor and one supply decoupling capacitor to complete the design. This creates a very compact design and lowers the bill of materials. For example, the BGU7005 is in a 1.45 x 1 mm package with an application area of only 4.53 x 4.53 mm. **NXP Semiconductors N.V., Eindhoven, Netherlands + 31 40 27 29960, [www.nxp.com](http://www.nxp.com).**

## Material

### Heatsink

Designed for applications requiring high power densities and where forced air cooling is present, Ohmite has released a larger version of its MV/MA heatsink, which provides even more heat dissipation. The longer, more efficient fin extrusions on the new version give nearly twice the thermal performance as their smaller MV/MA 102 product. The MV/MA 302 heatsink is 2.2" x 1.71" and uses



the same installation mechanism, which provides two internal spring clips for mounting up to four TO-247 or TO-264 devices. The spring clips eliminate the need for mounting holes and screws, are resilient and provide the same amount of force after repeated use. **Ohmite Manufacturing Co., Arlington Heights, IL (847) 238-0300, [www.ohmite.com](http://www.ohmite.com).**

## Semiconductors/ICs

### GaN on SiC Devices



two Gallium Nitride on Silicon Carbide (GaN on SiC) technology devices targeted for the military communication market. Integra's world class RF design team has launched several new products characterized for broadband applications ranging from 30 to 512 MHz to 100 to 1000 MHz. Intended for commercial broadband communication applications, including EW jammers, the unmatched devices provide a range of output power from 25 W to over 200 W in a low parasitic wide lead ceramic package.

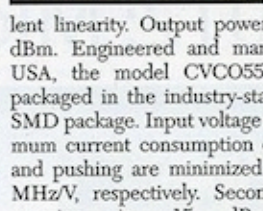
**Integra Technologies Inc., El Segundo, CA (310) 606-0855, [www.integrattech.com](http://www.integrattech.com).**

Integra Technologies Inc. (ITI), a manufacturer of high power pulsed RF transistors, announced the development of

## Sources

### 3050 to 4250 MHz VCO

Crystek's CVCO55CW-3050-4250 VCO operates from 3050 to 4250 MHz with a control voltage range of 1.5 to 18.5 V. This VCO features a typical phase noise of -85 dBc/Hz at 10 KHz offset and has excellent



linearity. Output power is typically +1.5 dBm. Engineered and manufactured in the USA, the model CVCO55CW-3050-4250 is packaged in the industry-standard 0.5" x 0.5" SMD package. Input voltage is 5 V, with a maximum current consumption of 16 mA. Pulling and pushing are minimized to 5 MHz and 5 MHz/V, respectively. Second harmonic suppression is -15 dBc typical. The CVCO55CW-3050-4250 is ideal for use in applications, such as digital radio equipment, fixed wireless access, satellite communications systems and base stations.

**Crystek Corp., Ft. Myers, FL (800) 237-3061, [www.crystek.com](http://www.crystek.com).**

### GPS Disciplined Oscillator



LC\_1x1 is an extremely small Global Positioning System Disciplined Oscillator (GPSDO) that has been designed for cost-sensitive LTE applications. LC\_1x1 is backwards compatible to the popular Jackson Labs Technologies Inc. FireFly-IIA GPSDO, designed to meet stringent LTE holdover specifications that previously required Rubidium references. At only 1.6" x 1.9" x 0.8", LC\_1x1 provides Stratum-1 long-term performance of typically better than 1 part per trillion (1E-12) averaged over 24 hours. LC\_1x1 is available in a low profile (0.63" high) single-oven oscillator version, or a higher performance doubleoven oscillator version. LC\_1x1 is a 10 MHz frequency and timing reference.

**Jackson Labs Technologies Inc., Los Gatos, CA (408) 354-7888, [www.jackson-labs.com](http://www.jackson-labs.com).**

## Test Equipment

### PIM Analyzer



Anritsu Co. introduces the MW8209A PIM Master, a passive intermodulation (PIM) analyzer that covers the 900 MHz band to address the growing need to measure PIM in E-GSM networks, including UMTS Band VIII and LTE Band 8. Designed for use with Anritsu handheld analyzers, the MW8209A comes with Anritsu's Distance-to-PIM technology, the only tool on the market that can determine if the cause of PIM is at the

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