

33 GHz. This wideband attenuator product exhibits insertion loss as low as 4 dB, and can be programmed to provide up to 15.5 dB attenuation in 0.5 dB steps. The HMC939LP4E and HMC941LP4E feature excellent attenuation accuracy of ± 0.3 dB and fast switching speed of 90 ns, and both accept positive control voltages of 0/+3V or 0/+5V. Both are housed in RoHS compliant, 4 x 4 mm QFN packages.

Hittite Microwave Corporation
www.hittite.com



Single-Band Front End Module

RFMD's new RFFM3482E front end module (FEM) is a single-chip integrated FEM for high-performance WiFi applications in the 2.4 to 2.5 GHz ISM band. It addresses the need for aggressive size reduction for typical 802.11b/g/n front end designs and reduces the number of components outside of the core chipset. RFFM3482E has an integrated b/g/n power amplifier, directional power detector, Rx balun, and Tx filtering. It is also capable of switching between WiFi Rx, WiFi Tx, and Bluetooth Rx/Tx operations. In a $3 \times 3 \times 0.45$ mm, 16-pin package, this module meets or exceeds the RF front end needs of 802.11b/g/n WiFi RF systems.

RFMD
www.rfmd.com

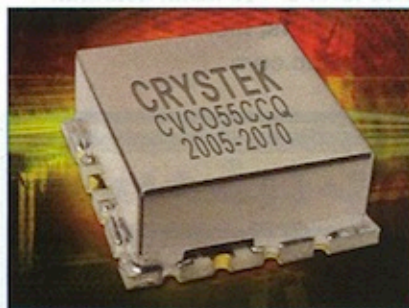


VCOs with Electrical Tuning

Z-Communications, Inc. has introduced the DRO Series of high performance oscillators, which use high-Q dielectric resonators and are currently available at 8 to 12 GHz. The electrical tuning option for the DRO operating at 10 GHz has a con-

trol range of 0-12 Vdc. The electrical tuning provides ± 3 MHz of frequency control allowing the oscillator to be quickly and easily phase-locked. DRO Series oscillators provide a low phase noise and spectral purity as good as -110 dBc/Hz, typically, at 10 kHz from the carrier. DROs minimize power consumption by operating off a 5 Vdc bias while drawing only 20 mA, typically, and are available in a surface mount packages measuring $0.91 \times 0.91 \times 0.40$ inches. For rugged applications, DROs are available in a connectorized metal enclosure measuring $1.25 \times 1.25 \times 0.85$ inches. The DRO series oscillators also deliver 0 ± 3 dBm of output power into a 50-ohm load. Delivery time is 4-6 weeks ARO at \$195.00 each. Contact the factory for production delivery and OEM pricing.

Z-Communications, Inc.
www.zcomm.com



2005-2070 MHz VCO

Crystek's CVCO55CCQ-2005-2070 VCO (voltage controlled oscillator) operates from 2005 to 2070 MHz with a control voltage range of 0.1 V ~ 4.9 V. This VCO features a typical phase noise of -114 dBc/Hz at 10 kHz offset and has excellent linearity. Output power is typically +5 dBm. Engineered and manufactured in the USA, the model CVCO55CCQ-2005-2070 is packaged in the industry-standard 0.5×0.5 -in. SMD package. Input voltage is 5 V, with a max. current consumption of 40 mA. Pulling and Pushing are minimized to 2.0 and 0.5 MHz/V, respectively. Second harmonic suppression is -15 dBc typical. The CVCO55CCQ-2005-2070 is ideal for use in applications such as digital radio equipment, fixed wireless access, satellite communications systems, and base stations. For pricing details, contact Crystek Corporation. Family datasheets are available for download at the Company's website.

Crystek Corporation
www.crystek.com