High Dynamic Range IQ Modulators and Demodulators from Analog Devices

Posted Ron M. Seidel, Editorial Intern March 7, 2012

Devices Feature Integrated PLL and VCO; Operate at up to 2.4 GHz

Richardson RFPD has announces immediate availability and full design support capabilities for a group of high performance quadrature modulators and demodulators [1] for operation at frequencies up to 2.4 GHz from Analog Devices, Inc. (ADI). The devices offer a combination of performance, broadband operating frequency, and flexible device architecture that makes them ideal for a variety of wireless infrastructure applications, including 2G, 2.5G and 3G cellular base station radios, high-capacity point-to-point and point-to-multipoint radio links, wireless LAN and aerospace and defense equipment.

The ADRF6806 [2] and ADRF6807 [3] are high dynamic range IQ demodulators with integrated PLLs and VCOs. The fractional-N PLL/synthesizer generates a frequency in the range of 2.8 GHz to 4.2 GHz. A programmable quadrature divider divides the output frequency of the VCO down to the required local oscillator (LO) frequency to drive the mixers in quadrature. Additionally, an output divider generates a divided-down VCO signal for external use.

The ADRF6701 [4] and ADRF6702 [5] provide quadrature modulator and synthesizer solutions within a small 6 mm x 6 mm footprint while requiring minimal external components. The low phase noise voltage controlled oscillator (VCO) and high performance quadrature modulator make the devices suitable for next generation communications systems requiring high signal dynamic range and linearity. The integration of the IQ modulator, phase-locked loop (PLL), and VCO provides for significant board savings and reduces the bill-of-materials (BOM) and design complexity.

Common configurations are in stock and available for immediate delivery.

For more information, please visit www.richardsonrfpd.com [6].

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