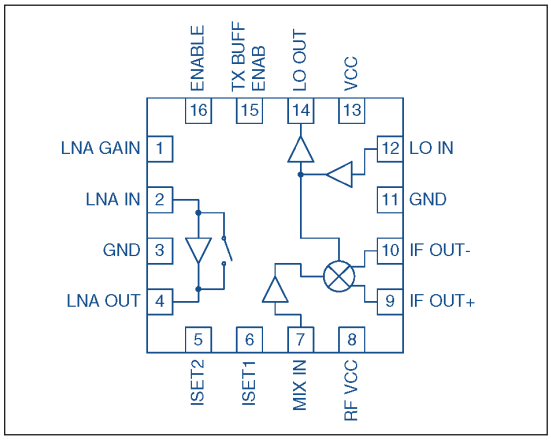
From November 2002 *High Frequency Electronics*

Highly Integrated CDMA Front End RFIC Features a 3 x 3 mm Package

A smaller package and integration of essential functions are highlights of this new RFIC for CDMA PCS and 2.4 GHz applications

RF Micro Devices announces the production availability of the RF2860 broadband front end receiver for CDMA PCS applications. The RF2860 is a low-cost, highly integrated broadband solution that is assembled in a reduced size 3 x 3 mm footprint package designed to optimize board space in CDMA handsets. The RF2860 complements the previously announced RF2870 single-band front end for CDMA cellular handsets. Both the RF2860 and RF2870 feature ESD protection on all pins.

The RF2860 is designed to exceed the IS-98B/D interim standard for CDMA PCS communications. This solution meets industry demands for reduced package size while adding increased functionality with its integrated TX LO buffer amplifier, digital control of LNA gain and power down mode. The RF2860 amplifies and downconverts RF signals while providing 21.5 dB of stepped gain control range. The front end offers adjustable IIP3 of the mixer and the LNA, using an off-chip current setting resistor to allow for minimum DC current consumption. The RF2860 exhibits 1.8 dB cascaded noise figure, 28 dB cascaded gain and –11.0 dBm cascaded input IP3 while consuming 27.5 mA of current. The broadband design makes the RF2860 suitable for CDMA US PCS and Korean PCS systems as well as IMT-2000, 2.4 GHz band and GPS applications in all major world markets.



Functional block diagram of the RF2860.

The RF2860 uses SiGe technology and a small-size package to meet price and performance demands.

Manufactured in silicon germanium (SiGe), the RF2860 is offered in a 3 x 3 mm leadless plastic package. Samples, fully assembled evaluation boards and production quantities are available now.

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