RF6001

FRACTIONAL-N RF SYNTHESIZER WITH MODULATOR AND DIGITAL IF FILTER

Part of the POLARIS™ TOTAL RADIO™ Solution

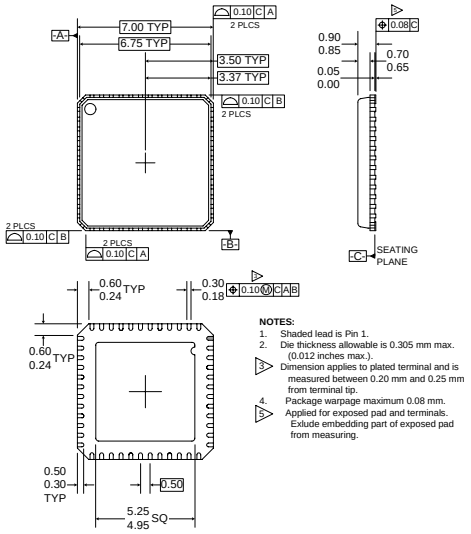
RoHS Compliant & Pb-Free Product

Typical Applications

- GSM/DCS Handsets
- GSM/DCS/PCS Handsets
- Quad-Band GSM Handsets
- Multi-Band $EDGE_{RX}$ Handsets
- Multi-Band GPRS Handsets

Product Description

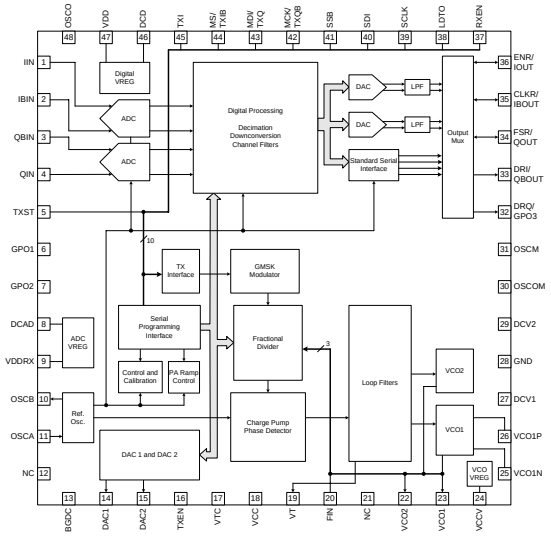
The RF6001 is a combination synthesizer and signal processing IC, which along with the RF2722 Very-Low-IF Receive IC, constitutes RFMD's low-cost GSM transceiver solution. The high-performance fractional-N synthesizer offers numerous features including a fully digital GMSK modulator with provisions for an analog I/Q interface and extremely low current consumption. The signal processor section provides a digital receive filter path designed to complement the RF2722. The IF inputs are digitized, filtered and downconverted to baseband I and Q signals. The flexible baseband interface can be configured for either analog or digital operation. Chip functionality is controlled through a three-wire serial data interface (SDI) bus. The RF2722 is part of the POLARIS™ TOTAL RADIO™ solution.



Package Style: QFN, 48-Pin, 7x7

Optimum Technology Matching® Applied

- ☐ Si BJT
- ☐ Si Bi-CMOS
- ☐ InGaP/HBT
- ☐ GaAs HBT
- ☐ SiGe HBT
- ☐ GaN HEMT
- ☐ GaAs MESFET
- ☑ Si CMOS
- ☐ SiGe Bi-CMOS



Functional Block Diagram

Features

- Fractional-N Synthesizer with Digital GMSK Modulator
- Signal Processing Circuitry for use with RF2722 VLIF Receiver
- Versatile Baseband Interface
- Integrated RF Transmit VCO's

Ordering Information

RF6001	Fractional-N RF Synthesizer with Modulator and Digital IF Filter

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