



Preliminary

RF6001

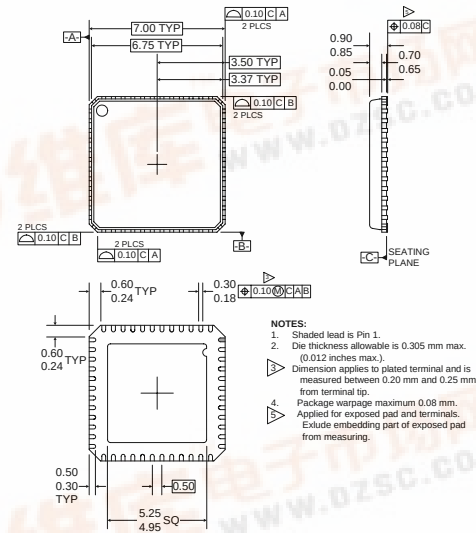
FRACTIONAL-N RF SYNTHESIZER WITH MODULATOR AND DIGITAL IF FILTER

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 RF2710/RF2716 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 RF2710/RF2716. 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.



Optimum Technology Matching® Applied

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

Package Style: QFN, 48-Pin, 7x7

Features

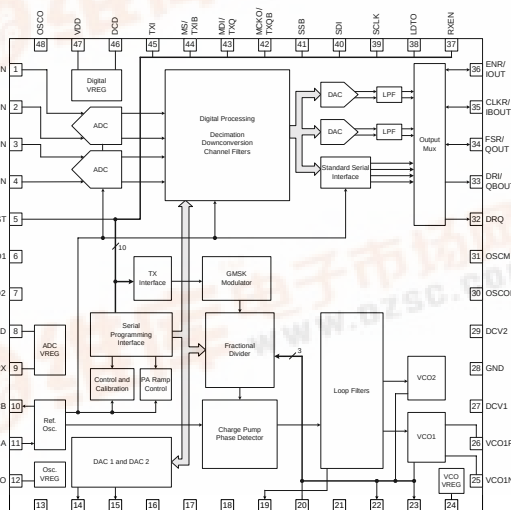
- Fractional-N Synthesizer with Digital GMSK Modulator
- Signal Processing Circuitry for use with RF2710/RF2716 VLIF Receiver
- Versatile Baseband Interface
- Integrated RF Transmit VCO's

Ordering Information

- | | |
|-------------|--|
| RF6001 | Fractional-N RF Synthesizer with Modulator and Digital IF Filter |
| RF6001 PCBA | Fully Assembled Evaluation Board |

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Functional Block Diagram

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