

# 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<sub>RX</sub> Handsets
- Multi-Band GPRS Handsets

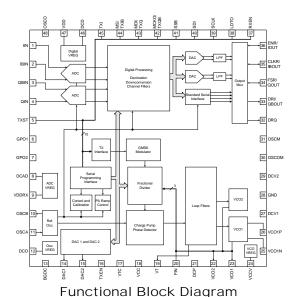
## **Product Description**

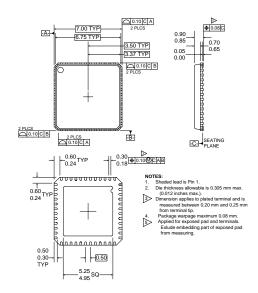
The RF6001 is a combination synthesizer and signal processing IC, which along with the RF2710/RF2716 Very-Low-IF Receive IC, constitutes RFMD's low-cost GSM transceiver solution. The high-performance fractional-N synthesizer offers numerous features including a fully digital GMSK modulator with provisions 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

☐ 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 Dig-

ital IF Filter

RF6001 PCBA Fully Assembled Evaluation Board

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