

# GSM900/1800/1900 Dual/Triple Band Rx/Tx GSM/GPRS Transceiver Module **CXM3000GA**

## **Description**

The CXM3000GA is a module for the RF section of GSM/GPRS handsets containing a fast-lock synthesizer and RF transceiver.

## **Features**

- Receiver, transmitter, dual PLL, RF + IF VCOs
- Dual fast lock PLL (< 140  $\mu$ s)
- No external RF or IF LO required
- Extremely small size: 8.0  $\times$  8.0  $\times$  1.3 mm
- Programmable baseband interface
- Tx sum-loop modulator
- Power save control on all functions
- Rx current 55 mA 3.0 V
- Tx current 75 mA 3.0 V
- On-chip LNA bias control
- On-chip transmit IF filtering
- 3-wire serial bus control
- 60-pin LFLGA module package

## **Functions**

- Receive down-conversion mixers  $\times$  2
- PGA IF amplifier (programmable gain amplifier)
- IQ demodulator and baseband filters
- IQ modulator (single sideband)
- Tx sum-loop mixer and phase detector
- LNA temperature compensated bias control
- VCOs with the on-chip RF and IF

## **Applications**

- GPRS class 12
- GSM900/1800/1900 triple band
- GSM900/1800 dual band
- GSM900/1900 dual band
- GSM900 single band
- GSM1800 single band
- GSM1900 single band

## **Structure**

Land grid array plastic multi-chip module

## **Absolute Maximum Ratings**

- Supply voltage  $V_{cc}$  -0.3 to +4.0 V
- Operating temperature  
 $T_{opr}$  -25 to +85  $^{\circ}$ C
- Storage temperature  
 $T_{stg}$  -65 to +150  $^{\circ}$ C

## **Operating Conditions**

- Supply voltage  $V_{cc}$  2.7 to 3.6 V