

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 ($< 140 \mu\text{s}$)
- No external RF or IF LO required
- Extremely small size: $8.0 \times 8.0 \times 1.3 \text{ mm}$
- 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 $+85$ °C
- Storage temperature
 T_{stg} -65 to $+150$ °C

Operating Conditions

- Supply voltage V_{cc} 2.7 to 3.6 V