

# ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.

8/97



## Low-Cost Downconverter with Low-Noise Amplifier

MAX2406

### General Description

The MAX2406 is designed for use over a wide range of frequencies and is optimized for communication systems operating around 1.9GHz. Applications include PWT1900/DCT1900, DCS1800/PCS1900, PHS, and DECT. This device includes a low-noise amplifier, a downconverter mixer, and a local-oscillator buffer in a low-cost, plastic surface-mount package. The LNA has a 2.5dB noise figure and a -9.5dBm input IP3. The downconverter mixer has a low 9dB noise figure and a 4dBm input third-order intercept point. Image and local-oscillator filtering are implemented off-chip for maximum flexibility.

The MAX2406 has a differential IF output port, which can be used in a single-ended configuration by tying the unused side to VCC. The LO buffer can also be driven differentially or in a single-ended configuration with only -10dBm of LO power. Power consumption is only 60mW in receive mode and drops to less than 3µW in shutdown mode.

For transceiver applications, the MAX2410 or MAX2411A both offer a transmitter along with a similar receiver.

### Applications

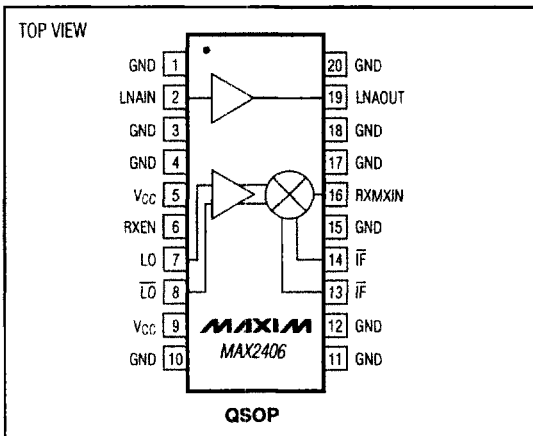
PWT1900/DCT1900

DCS1800/PCS1900

PHS/PACS

DECT

### Pin Configuration



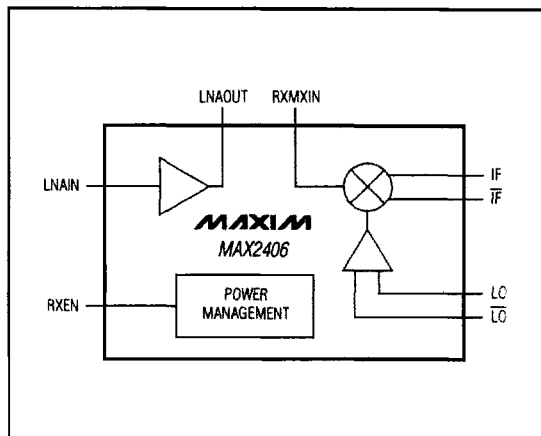
### Features

- ◆ +2.7V to +5.5V Single-Supply Operation
- ◆ Integrated LNA/Downconverter
- ◆ 3.2dB Combined Receiver Noise Figure (2.5dB LNA, 9dB mixer)
- ◆ -12.3dBm Combined Receiver Input IP3 (-9.5dBm LNA, 4dBm mixer)
- ◆ LO Buffer
- ◆ 60mW Power Consumption
- ◆ <3µW Shutdown Mode

### Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX2406EEP	-40°C to +85°C	20 QSOP

### Functional Diagram



10



Maxim Integrated Products 10-21

For free samples & the latest literature: <http://www.maxim-ic.com>, or phone 1-800-998-8800. For small orders, phone 408-737-7600 ext. 3468.