

## Receiver/Demodulator Circuit

PMB 2401

### Preliminary Data

#### General Description

The PMB 2401 is a single-chip double-conversion heterodyne PM receiver with phase shifting circuitry for the I/Q-phase demodulation on chip. It also includes the second local oscillator, a gain controlled 2nd IF amplifier, 2 differential operational amplifiers for audio purposes and power-down circuitry.

The PMB 2401 is designed for digital mobile telephones according the GSM standard and other digital systems.

#### Application

- Digital mobile cellular systems as GSM, PDC, DAMPS
- Various demodulation schemes, such as PM, PSK, FSK, QAM, QPSK, GMSK
- Space and power saving optimizations of existing discrete demodulator circuits

Type	Package
PMB 2401-T	P-DSO-28-1 (SMD)
PMB 2401-S	P-SSOP-28-1 (Shrink, SMD)

#### Features

- Heterodyne receiver with demodulator
- Down mixing from 900-MHz receiver band to the base band
- Demodulation and generation of I/Q components
- Lower mixer noise to 10 dB (SSB)
- High intercept point + 2 dBm
- Integrated phase shifter for I/Q demodulator
- 82-dB AGC range
- On-chip second LO oscillator with external tuning circuit
- Two differential operational amplifiers
- Low power consumption due to highly flexible power-down capability
- Wide input frequency range up to 1 GHz
- Wide IF range from 35 MHz to 100 MHz
- P-DSO-28 package, P-SSOP-28 (Shrink)
- Temperature range - 25 °C to 85 °C

