MOTOROLA
SEMICONDUCTOR
TECHNICAL DATA

MC13104
MC13105

Product Preview

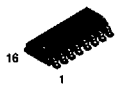
1.0 GHz Receiver LNA/Mixer/VCO

1.0 GHz RECEIVER LNA/MIXER/VCO

SILICON MONOLITHIC INTEGRATED CIRCUIT

The MC13104/13105 are fully integrated UHF down converters intended for use in receivers operating in the 800 MHz to 1.0 GHz frequency range. The design utilizes Motorola's advanced Mosaic® 3 RF bipolar process to yield high gain, low noise, low current drain in a cost effective monolithic device. The basic receiver functions of low noise amplifier, mixer and AGC are included in both devices, while the MC13104 also includes a VCO with two buffered outputs which permit simple interfacing to multichannel PLL/prescaler frequency synthesized systems. Applications for the MC13104/13105 include CT-2 cordless telephones, security monitor receivers, remote control, video and audio short range links, field disturbance receivers, and low cost cellular radios. A power down control to minimize current drain with minimum recovery/turn-on time.

- Low Cost Silicon Bipolar Design
- Internal VCO
- VCO Buffer to Drive Prescalar
- Low Drain Current: Nominal 10 mA Current Drain (ON)
- Power Down Current: Nominal 10 μA
- LNA Has AGC Input with Nominal ≥ 20 dB Range
- Performance Optimized for CT-2 and Similar Systems
- Target Noise Figure of 5.0 dB Overall at 1.0 GHz
- Input Impedance: Nominal 50 Ω



D SUFFIX
PLASTIC PACKAGE
CASE 751B
(SO-16)

ORDERING INFORMATION

Device	Temperature Range	Package
MC13104D	– 20° to +70°C	SO-16
MC13105D		SO-16

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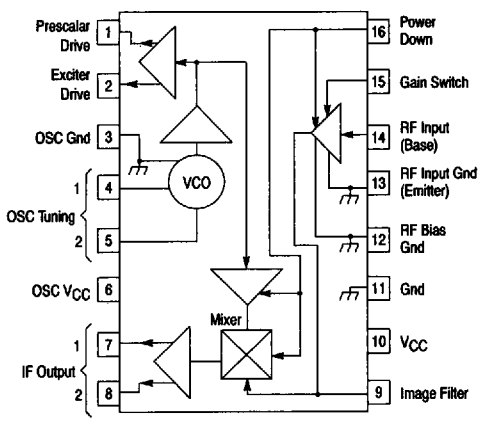
PIN CONNECTIONS AND BLOCK DIAGRAMS

(MC13104)



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