


## Up/Down Conv Mixer 5V 2.4GHz 14-Pin TSSOP Tube

<b>Manufacturer:</b>	<a href="#">Analog Devices, Inc</a>
<b>Package/Case:</b>	TSSOP14
<b>Product Type:</b>	RF Integrated Circuits
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The AD8343 is a high-performance broadband active mixer. With wide bandwidth on all ports and very low intermodulation distortion, the AD8343 is well suited for demanding transmit applications or receive channel applications.

The AD8343 provides a typical conversion gain of 7 dB. The integrated LO driver supports a 50  $\Omega$  differential input impedance with low LO drive level, helping to minimize external component count.

The open-emitter differential inputs can be interfaced directly to a differential filter or driven through a balun (transformer) to provide a balanced drive from a single-ended source.

The open-collector differential outputs can be used to drive a differential IF signal interface or convert to a single-ended signal through the use of a matching network or transformer. When centered on the VPOS supply voltage, the outputs swing  $\pm 1$  V.

The LO driver circuitry typically consumes 15 mA of current. Two external resistors are used to set the mixer core current for required performance, resulting in a total current of 20 mA to 60 mA. This corresponds to power consumption of 100 mW to 300 mW with a single 5 V supply.

The AD8343 is fabricated on Analog Devices, Inc.'s high-performance 25 GHz silicon bipolar IC process. The AD8343 is available in a 14-lead TSSOP package. It operates over a  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  temperature range. A device-populated evaluation board is available.

## Key Features

High-performance active mixer

Broadband operation to 2.5 GHz

Conversion gain: 7 dB

Input IP3: 16.5 dBm

LO drive: -10 dBm

Noise figure: 14 dB

Input P1dB: 2.8 dBm

Differential LO, IF and RF Ports

50  $\Omega$  LO input impedance

Single-supply operation: 5 V @ 50 mA typical

Power-down mode @ 20  $\mu$ A typical

## Application

Cellular base stations

Wireless LAN

Satellite converters

SONET/SDH radio

Radio links

RF instrumentation

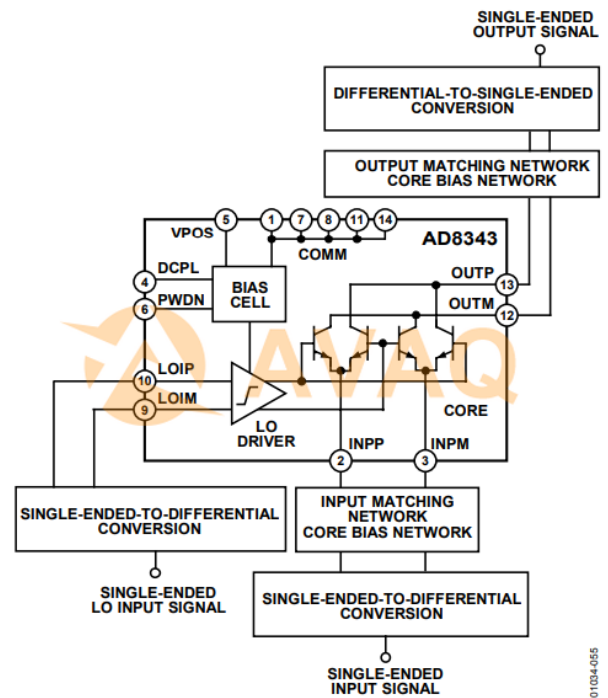
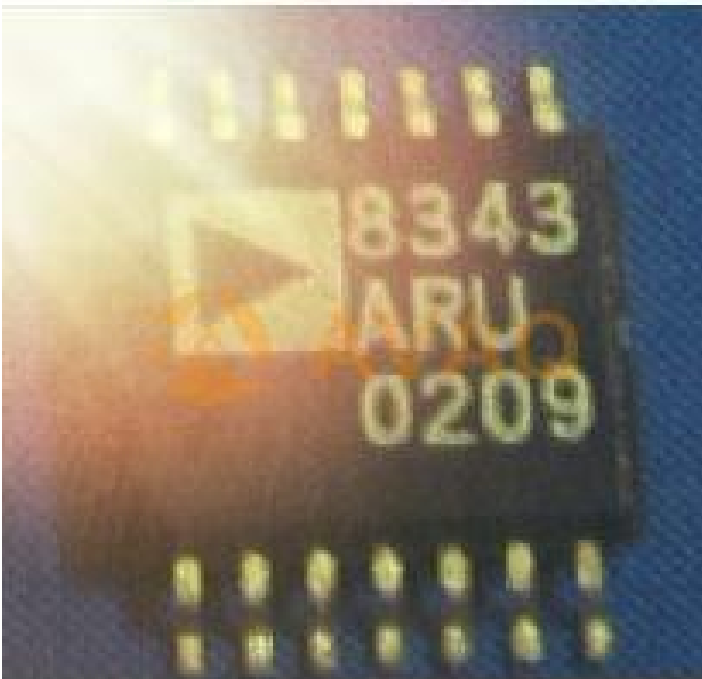


Figure 55. Basic AC Signal Connection Diagram

## Recommended For You

### ADF4153BCPZ

Analog Devices, Inc

QFN

### ADF5355BCPZ

Analog Devices, Inc

LFCSP32

### AD8318ACPZ

Analog Devices, Inc

LFCSP

**AD6620ASZ**

Analog Devices, Inc

QFP

**ADF4107BCPZ**

Analog Devices, Inc

QFN

**ADL5513ACPZ-R7**

Analog Devices, Inc

LFCSP-16

**AD8319ACPZ**

Analog Devices, Inc

LFCSP

**ADRF6755ACPZ**

Analog Devices, Inc

QFN

**ADL5535ARKZ-R7**

Analog Devices, Inc

SOT89

**AD608AR**

Analog Devices, Inc

SOP16

**ADF4107BRUZ-REEL7**

Analog Devices, Inc

TSSOP16

**ADRF6780ACPZN**

Analog Devices, Inc

QFN

**AD8317ACPZ**

Analog Devices, Inc

LFCSP

**AD608ARZ**

Analog Devices, Inc

SOP16

**AD8318ACPZ-REEL7**

Analog Devices, Inc

LFCSP