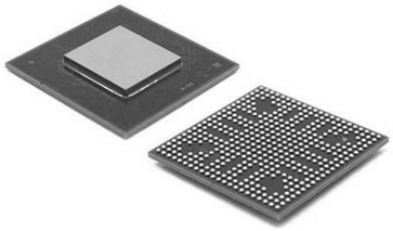
AD9864BCPZ

RF Receiver 3V/5V 48-Pin LFCSP EP Tray

Manufacturer:	Analog Devices, Inc
Package/Case:	LFCSP48
Product Type:	Communication & Networking ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The AD9864 is a general-purpose IF subsystem that digitizes alow level, 10 MHz to 300 MHz IF input with a signal bandwidthranging from 6.8 kHz to 270 kHz. The signal chain of the AD9864consists of a low noise amplifier (LNA), a mixer, a band-pass Σ-Δanalog-to-digital converter (ADC), and a decimation filter withprogrammable decimation factor. An automatic gain control(AGC) circuit gives the AD9864 12 dB of continuous gainadjustment. Auxiliary blocks include both clock and localoscillator (LO) synthesizers.

The high dynamic range of the AD9864 and inherent antialiasingprovided by the band-pass Σ-Δ converter allow the device to copewith blocking signals up to 95 dB stronger than the desired signal.This attribute often reduces the cost of a radio by reducing IFfiltering requirements. Also, it enables multimode radios of varyingchannel bandwidths, allowing the IF filter to be specified for thelargest channel bandwidth.

The SPI port programs numerous parameters of the AD9864,allowing the device to be optimized for any given application.Programmable parameters include synthesizer divide ratios, AGCattenuation and attack/decay time, received signal strength level,decimation factor, output data format, 16 dB attenuator, and theselected bias currents.

The AD9864 is available in a 48-lead LFCSP package and operatesfrom a single 2.7 V to 3.6 V supply. The total power consumptionis typically 56 mW and a power-down mode is provided viaserial interfacing.

Key Features

10 MHz to 300 MHz input frequency

6.8 kHz to 270 kHz output signal bandwidth

7.5 dB single sideband noise figure (SSB NF)

AGC free range up to −34 dBm

12 dB continuous AGC range

16 dB front-end attenuator

Baseband I/Q 16-bit (or 24-bit) serial digital output

LO and sampling clock synthesizers

Programmable decimation factor, output format, AGC, and synthesizer settings

370 Ω input impedance

2.7 V to 3.6 V supply voltage

Low current consumption: 17 mA

48-lead LFCSP package

Application

Multimode narrow-band radio products- Analog/digital UHF/VHF FDMA receivers- TETRA, APCO25, GSM/EDGE

Portable and mobile radio products

SATCOM terminals

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

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LFCSP