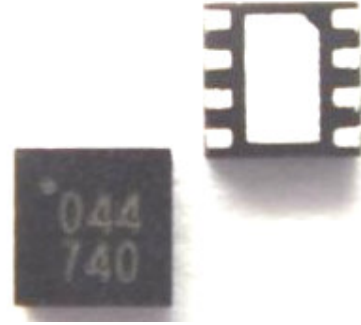


2.4GHz Linearized Power Amplifier

Introduction

The PA2432 is a two-stage linearized power amplifier optimized for 802.11b/g wireless LAN (WLAN) applications in the 2.4 GHz band. The device is designed to operate from a single 3.3V supply, it does allow for separate control of the first and second stages, allowing the user to choose the optimum balance between output power/efficiency and linearity for particular application. It features 26 dB of gain and delivers up to 25 dBm of output power.

The device is sold in a RoHS compliant miniature 2 x 2 x 0.8 mm 8-pin SON package to make automated assembly simple. Its small and thin package size makes the device an ideal solution for radios built in small form factors for mobile applications.



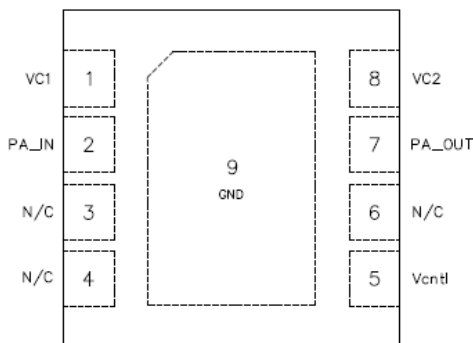
Applications

- IEEE 802.11b/g WLAN
- Bluetooth Class 1
- 2.4 GHz Cordless Phones
- 2.4 GHz ISM Radios

Features

- 2.4 to 2.5 GHz Operating Range
- 26 dB Gain
- 3% EVM at Pout=+17 dBm with 54 Mbps OFDM signal
- +3.3V Single Supply
- 2 x 2 x 0.8 mm 8-pin SON Package
- RoHS compliant product

Pin Assignment



< Top View >



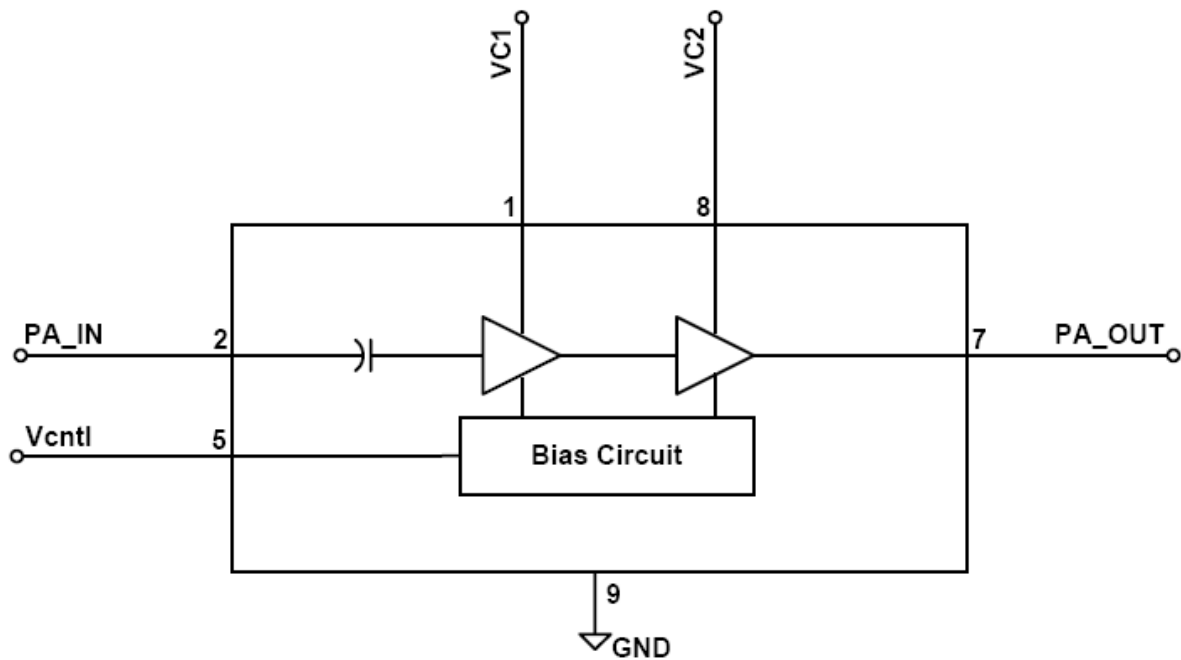
Caution!
ESD sensitive device



Pin Description

Pin	Pin Name	Pin Description
1	VC1	PA Vcc
2	PA_IN	PA input
3	N/C	No connection
4	N/C	No connection
5	Vcntl	PA control volatge
6	N/C	No connection
7	RF OUT	PA output
8	VC2	PA Vcc
9	GND	Package backside ground slug

Functional Diagram drawing



Specifications

Absolute Maximum Ratings

Vc1, Vc2, Vcntl	-0.5V to +4.5V
Operating Temperature Range	-20°C to +85°C
Storage Temperature Range	-65°C to +125°C
Soldering Conditions	260°C peak for 20 seconds

DC Electrical Characteristics (Temp.=25°C)

PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Supply Voltages					
Vc1		3.0	3.3	3.6	Volts
Vc2		3.0	3.3	3.6	Volts
Vcntl	Rb=47Ω		2.9		Volts
Supply Currents					
Ic1 + Ic2	Quiescent (no RF) Pout = +17 dBm		112 130		mA
Icntl			5		mA
Thermal Resistance					
θjc	Pout=+18dBm, Icc=140mA Vcc=3.3V, Ta=+85°C		99		°C/W

AC Electrical Characteristics (Temp.=25°C) Vcc=3.3V Vcntl=2.9

PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
RF Frequency Range (Note 1)		2.4		2.5	GHz
Gain			26		dB
Input Return Loss			+10		dB
Output Return Loss			+10		dB
ACPR 1 st Side Lobe at Pout=23 dBm	802.11b, 1 Mbps Long		-30		dBc
ACPR 2 nd Side Lobe at Pout=23dBm	802.11b, 1 Mbps Long		-52		dBc
Total Current at Pout=17 dBm	64 QAM / 54 Mbps, uncorrected		130		mA
EVM at Pout = 17 dBm	64 QAM / 54 Mbps, uncorrected		3		%
Second Harmonics	At Pout=21dBm,		42		dBc
Third			52		dBc
P1dB			23		dBm
Saturated Output Power			25		dBm

Note 1: Operation outside this range is possible, but not guaranteed

Ordering Information

Ordering Number	Component Packing
PA2432	1,000pcs / Tape & Reel
PA2432-EVB	PA2432 Evaluation Kit

**For additional product information, please contact
sales@epic.com.tw**

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