

MGA-43040

High Linearity (2.3-2.4) GHz Power Amplifier Module



Product Brief - Preliminary

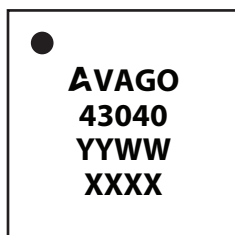
Description

Avago Technologies' MGA-43040 is a fully match amplifier for use in the (2.3-2.4) GHz band. High linear output power at 5V is achieved through the use of A Technologies' proprietary 0.25um GaAs Enhancement pHEMT process. MGA-43040 is housed in a miniature 5.0 5.0mm molded-chip-on-board (MCOB) module package detector is also included on-chip. The compact footprint coupled with high gain, high linearity and good efficiency the MGA-43040 an ideal choice as a power amplifier cell BTS PA applications.

Applications

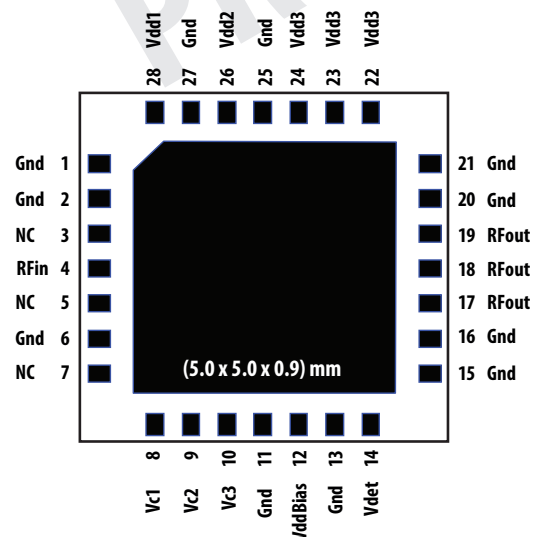
- Final stage high linearity amplifier Enterprise Femtocell PA targeted for small cell BTS downlink applications

Package Outline (Top View)



Notes:
Package marking provides orientation and identification
"43040" = Device part number
"YYYW" = Year and work week
"XXXX" = Assembly lot number

Pin Configuration



Features

- High linearity performance Max -48dBc ACPR^[1] at 27.0dBm linear output power (biased with 5 supply)
- High Gain : 42dB
- Good efficiency
- Fully matched
- Built-in detector
- GaAs E-pHEMT Technology^[2]
- Low cost small package size: 5.0 x 5.0 x 0.9 mm

Specifications

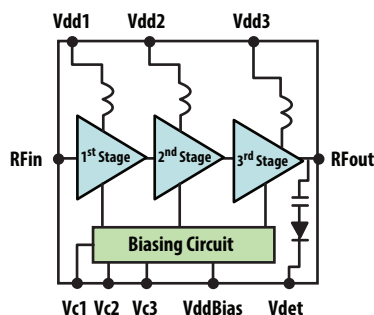
2.35GHz; 5.0V, Idq=350mA (typ), LTE 20MHz 100RB

- PAE : 13%
- 27.0dBm linear Pout @ ACPR
- 42dB Gain
- Detector range : 20dB

Notes:

- LTE 20MHz 100RB Test Mode 1.1
- Enhancement mode technology employs positive Vgs, thereby eliminating the need of negative gate voltage associated with conventional depletion mode devices.

Functional Block Diagram



Attention: Observe precautions for handling electrostatic sensitive devices.
ESD Machine Model = TBD
ESD Human Body Model = TBD
Refer to Avago Application Note A004R:
Electrostatic Discharge, Damage and Control.

This preliminary data is provided to assist you in the evaluation of product(s) currently under development. Until Avago Technologies releases this product for general sales, Avago Technologies reserves the right to alter prices, specifications, features, capabilities, functions, release dates, and remove availability of the product(s) at anytime.

Absolute Maximum Rating^[1] $T_A = 25^\circ\text{C}$

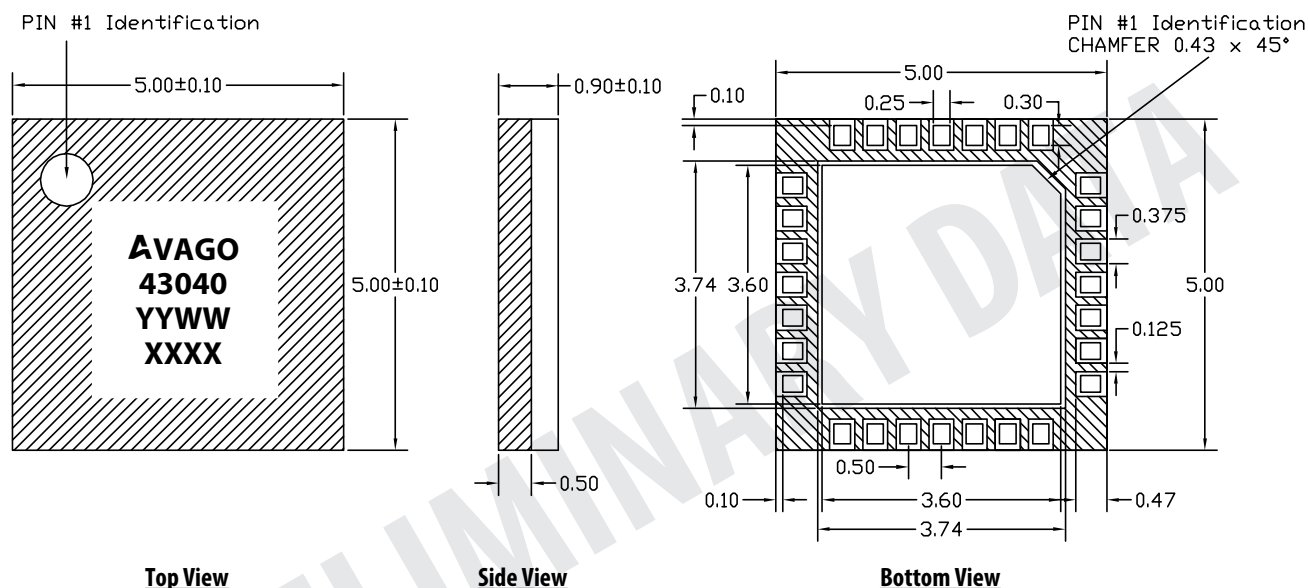
Symbol	Parameter	Units	Absolute Max.
V _{dd} , V _{dd} Bias	Supply voltages, bias supply voltage	V	6
V _c	Control Voltage	V	(V _{dd})
P _{in,max}	CW RF Input Power	dBm	20
P _{diss}	Total Power Dissipation ^[3]	W	TBD
T _j	Junction Temperature	°C	150
T _{STG}	Storage Temperature	°C	-65 to 150

Thermal Resistance^[2,3]

$$\theta_{jc} = 14.2^\circ\text{C/W}$$

Notes:

1. Operation of this device in excess of any of these limits may cause permanent damage.
2. Thermal resistance measured using Infra-Red Measurement Technique.
3. Board temperature (T_B) is 25°C , for $T_B > \text{TBD } ^\circ\text{C}$ derate the device power at TBD mW per $^\circ\text{C}$ rise in Board (package belly) temperature.

MCOB (5.0 x 5.0 x 0.9) mm 28-Lead Package Dimensions

Note

1. All dimensions are in millimeters.
2. Dimensions are inclusive of plating.
3. Dimensions are exclusive of mold flash and metal burr.

Part Number Ordering Information

Part Number	Qty	Container
MGA-43040-BLKG	100	Antistatic Bag
MGA-43040-TR1G	1000	7" Reel

This preliminary data is provided to assist you in the evaluation of product(s) currently under development. Until Avago Technologies releases this product for general sales, Avago Technologies reserves the right to alter prices, specifications, features, capabilities, functions, release dates, and remove availability of the product(s) at anytime.

For product information and a complete list of distributors, please go to our web site: www.avagotech.com

Avago, Avago Technologies, and the A logo are trademarks of Avago Technologies in the United States and other countries.
Data subject to change. Copyright © 2005-2014 Avago Technologies. All rights reserved.
AV02-4505EN - May 15, 2014

AVAGO
TECHNOLOGIES

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9