



QPA9862

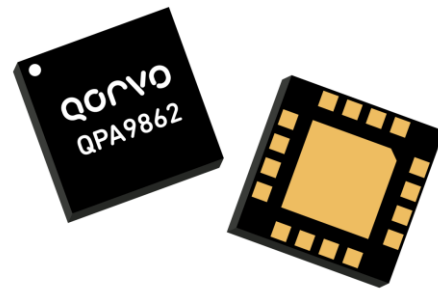
3.3 – 4.2 GHz 0.8 W High-Linearity Pre-Driver

Product Overview

The QPA9862 is an efficient wideband, high linearity driver amplifier. It provides 36.5dB gain at 3.6GHz and achieves a P3dB of 29.5dBm. The amplifier is designed to handle wideband 5G NR instantaneous signal bandwidths of up to 600MHz, making it perfectly suited for 5G m-MIMO applications.

The QPA9862 is internally match to 50Ω over the entire operating frequency band of 3.3 – 4.2 GHz and incorporates a fast enable/disable function through the V_{EN} pin.

The QPA9862 is housed in a 16-pin 3X3mm SMT package and is footprint and pin-compatible to QPA9120, QPA9121 and QPA9122M.

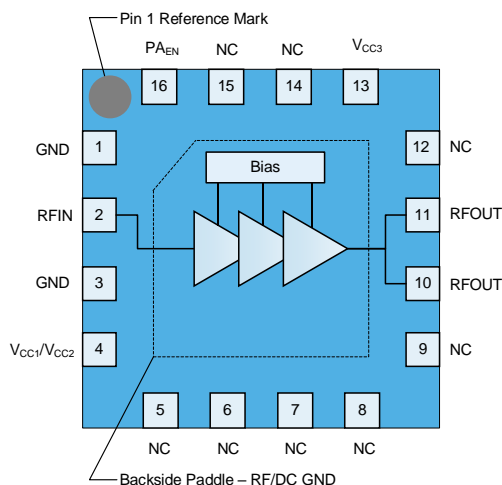


16 Pad 3 x 3 mm Laminate Package

Key Features

- 3.3 – 4.2 GHz Operational Frequency
- 50Ω Matched RF Input and Output
- +29.5 dBm P3dB
- 36.5 dB Gain at 3.6 GHz
- ≥400MHz IBW capability
- -48dBc ACPR @ Pout=16dBm
- +5 V Single Supply with I_{CQ} = 110mA
- Fast Enable/Disable for TDD Operation

Functional Block Diagram



Top View

Applications

- 5G m-MIMO
- Mobile Infrastructure
- General Purpose Wireless
- TDD System

Ordering Information

Part No.	Description
QPA9862SB	5pcs Sample Bag
QPA9862EVB01	Evaluation Board

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	1C	ESDA / JEDEC JS-001-2017
ESD – Charged Device Model (CDM)	C3	JEDEC JESD22-C101F
MSL – Moisture Sensitivity Level	MSL3	IPC/JEDEC J-STD-020



Caution!
ESD-Sensitive Device

Solderability

Compatible with both lead-free (260°C max. reflow temperature) and tin/lead (245°C max. reflow temperature) soldering processes. Solder profiles available upon request.

Contact plating: ENEPIG

RoHS Compliance

This part is compliant with 2011/65/EU RoHS directive (Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) as amended by Directive 2015/863/EU.

This product also has the following attributes:

- Product uses RoHS Exemption 7c-I to meet RoHS Compliance requirements
- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C₁₅H₁₂Br₄O₂) Free
- PFOS Free
- SVHC Free

Contact Information

For the latest specifications, additional product information, worldwide sales and distribution locations:

Web: www.qorvo.com

Tel: 1-844-890-8163

Email: customer.support@qorvo.com

Important Notice

The information contained herein is believed to be reliable; however, Qorvo makes no warranties regarding the information contained herein and assumes no responsibility or liability whatsoever for the use of the information contained herein. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for Qorvo products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. **THIS INFORMATION DOES NOT CONSTITUTE A WARRANTY WITH RESPECT TO THE PRODUCTS DESCRIBED HEREIN, AND QORVO HEREBY DISCLAIMS ANY AND ALL WARRANTIES WITH RESPECT TO SUCH PRODUCTS WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

Without limiting the generality of the foregoing, Qorvo products are not warranted or authorized for use as critical components in medical, life-saving, or life-sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.

Copyright 2024 © Qorvo, Inc. | Qorvo is a registered trademark of Qorvo, Inc.