



QPA9862

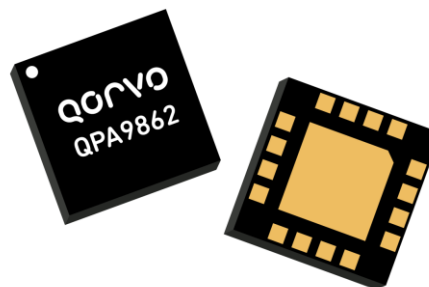
3.3 – 4.2 GHz 0.8 W High-Linearity Pre-Driver

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 50 Ω 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.

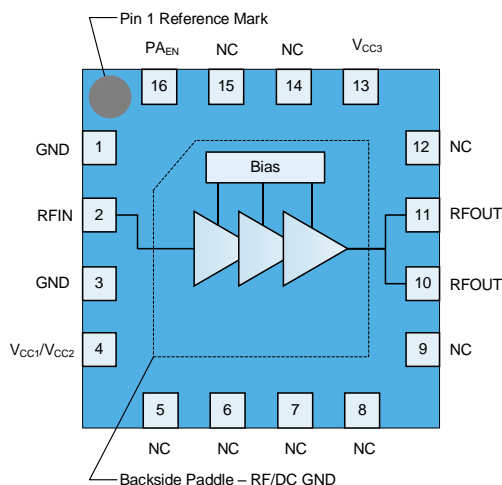


16 Pad 3 x 3 mm Laminate Package

Key Features

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

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