



ARQSP2527-4

PRODUCT SUMMARY



2.5 – 2.7 GHz 4 W HIGH-EFFICIENCY POWER AMPLIFIER

ARQSP2527-4 is a high-efficiency, DPD-friendly, robust power amplifier designed for 5G NR FR1 bands n7, n38, n41 and n90. This power amplifier is fully matched at input and output. It is realized in GaAs technology and overmolded in a compact 16-pin $5 \times 5 \text{ mm}^2$ LGA package.

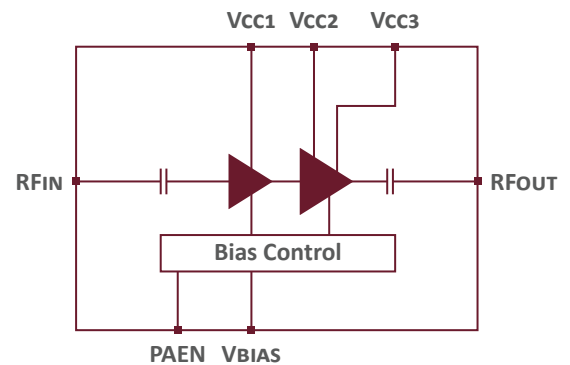
This amplifier is part of iCana's pin-to-pin compatible high-efficiency 4 W PA product family designed for wireless infrastructure supporting major 3GPP bands.



16 Pad $5 \times 5 \text{ mm}^2$ LGA Package

Key Features

- Frequency range: 2496 – 2690 MHz
- High efficiency: PAE = 35.2% at POUT = 28 dBm
- High linearity: ACLR < -50 dBc at POUT = 28 dBm with digital pre-distortion (5G signal, BW = 100 MHz)
- High output power: PSAT = 35.5 dBm
- High power gain: 37.1 dB
- Input return loss: > 12 dB
- Output return loss: > 10 dB
- 50 Ω matched input and output
- Single supply voltage: Vcc = 5.0 V
- Output VSWR = 10:1
- $5.0 \times 5.0 \text{ mm}^2$ pin-to-pin compatible PA family



Functional Block Diagram

Typical Applications

- FDD and TDD systems
- Small cells for wireless communications infrastructure
- Repeaters / DAS
- General purpose wireless

Ordering Guide

Part Name	Description
ARQSP2527-4	2.5 – 2.7 GHz 4 W High-Efficiency Power Amplifier
ARQSP2527-4-EVB	Evaluation Board for ARQSP2527-4

5G NR FR1 4 W PA Product Line

Product Name	Frequency Range (GHz)	5G Bands
ARQSP1819-4	1.8 – 1.9	n3, n39
ARQSP2122-4	2.1 – 2.2	n1
ARQSP2324-4	2.3 – 2.4	n30, n40
ARQSP2527-4	2.5 – 2.7	n7, n38, n41, n90
ARQSP3336-4	3.3 – 3.6	n77, n78
ARQSP3437-4	3.4 – 3.7	n48, n77, n78
ARQSP3742-4	3.7 – 4.2	n77
ARQSP4450-4	4.4 – 5.0	n79

REV 1.0

DISCLAIMER

©2025 iCana Ltd. All Rights Reserved. All information in this document is provided in connection with iCana Ltd. ("iCana") products as a service to its customers and may be used for informational purposes only. iCana assumes no responsibility for errors or omissions in this information contained and iCana may change its documentation, products, specifications or product descriptions at any time, without prior notice.

iCana Ltd.

5F, No. 28-2, Baogao Road, Xindian District,
New Taipei City 231, Taiwan (ROC)

icana-rf.com