

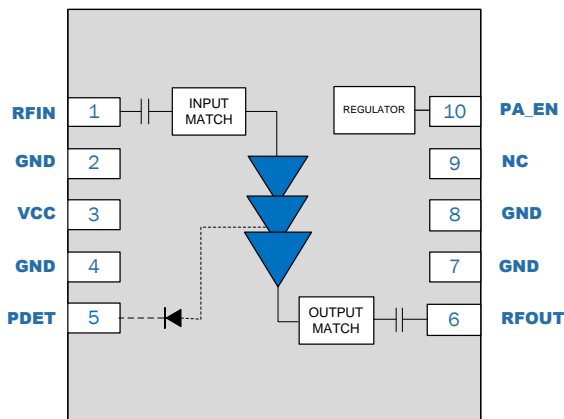
General Description

The RFPA5208 is a three-stage power amplifier (PA) designed for WiFi 802.11b/g/n/ac systems. The integrated input and output 50Ω match and integrated regulator minimizes layout area in the customer's application, reduces the bill of materials and manufacturability cost. Performance is focused on a balance of efficiency and linear power that increases the range of connection. The RFPA5208 integrates the Power Amplifier (PA), regulator and a power detector coupler for improved accuracy. The device is provided in a 4mm x 4mm x 1.05mm, 10-pin laminate package.



Package: Laminate, 10-pin,
4mm x 4mm x 1.05mm max

Functional Block Diagram



Functional Block Diagram

Product Features

- $P_{OUT} = +28\text{dBm}$, 802.11n, 20MHz MCS7 at -30dB Dynamic EVM
- $P_{OUT} = +26\text{dBm}$, 802.11ac, 20MHz MCS8 at -35dB Dynamic EVM
- 40dB Typical Gain
- High efficiency
- Input and Output Matched to 50Ω
- Integrated 2GHz PA, Regulator and P_{DET}

Applications

- Wireless Access Points
- Gateways
- Routers
- Microcells
- Consumer Premise Equipment

Ordering Information

Part Number	Description
RFPA5208SB	Sample bag with 5 pieces
RFPA5208SQ	Sample bag with 25 pieces
RFPA5208SR	7" Reel with 100 pieces
RFPA5208TR13	13" Reel with 2500 pieces
RFPA5208PCK-410	Evaluation Board plus 5 loose pcs

Pin Names and Descriptions

Pin	Name	Description
1	RFIN	RF input port is matched to 50Ω and DC blocked internally.
2	GND	Ground connection.
3	VCC	Voltage connected internally to the collectors of the RF device. To achieve specified performance, the layout of the pin should match the Recommended Land Pattern
4	GND	Ground connection.
5	PDET	Power detector provides an output voltage proportional to the RF output power level.
6	RFOUT	RF output is matched to 50Ω and DC blocked internally.
7	GND	Ground connection.
8	GND	Ground connection.
9	NC	No connect. Please ensure this pin is floating, do not connect.
10	PA_EN	PA Enable pin, apply <0.2Vdc to turn PA off. Apply 2.9Vdc to 3.1Vdc to enable PA.
Pkg Base	GND	Ground connection. The backside of the package should be connected to the ground plane through a short path, i.e., PCB vias under the device are recommended.



Caution! ESD sensitive device.



RFMD Green: RoHS status based on EU Directive 2011/65/EU (at time of this document revision), halogen free per IEC 61249-2-21, < 1000ppm each of antimony trioxide in polymeric materials and red phosphorus as a flame retardant, and <2% antimony in solder.