



QPF4530

Wi-Fi Front End Module

Product Overview

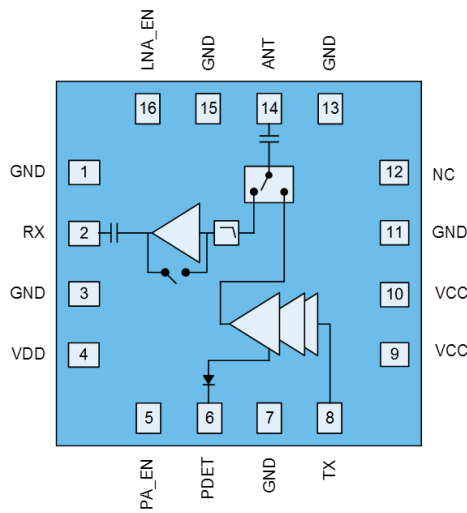
The Qorvo® QPF4530 is an integrated front end module (FEM) designed for Wi-Fi 802.11ax systems. The compact form factor and integrated matching minimizes layout area in the application.

Performance is focused on optimizing the PA for a 3.3V supply voltage that conserves power consumption while maintaining the highest linear output power and leading edge throughput. Receive path matches the optimal technologies to maximize Rx sensitivity through noise figure performance that is consistent over a wider variety of conditions.

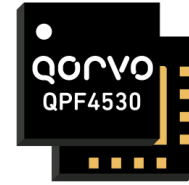
The receive path is pinned out so external filtering can be added in the optimal position. Integrated die level filtering for 2nd and 3rd harmonics as well as 2.4 GHz rejection for DBDC operation are included. A DC power detector which has voltage output provides feedback for close loop applications.

The QPF4530 integrates a 5 GHz power amplifier (PA), regulator, single pole two throw switch (SP2T) and bypassable low noise amplifier (LNA) into a single device

Functional Block Diagram



Top View



16 Pin 3x3 mm QFN Package

Key Features

- 5150 – 5925 MHz
- P_{OUT} = +15dBm MCS11 HE80 -43dB Dynamic EVM
- P_{OUT} = +18dBm MCS9 VHT80 -35dB Dynamic EVM
- P_{OUT} = +19dBm MCS7 HT20/40 -30dB Dynamic EVM
- P_{OUT} = +21dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +3.3 V Operation
- 0.5W Power Consumption at P_{OUT} +17dBm
- 30 dB Tx Gain
- 2 dB Noise Figure
- 15 dB Rx Gain & 7 dB Bypass Loss
- 37 dB 2.4 GHz Rejection on Rx Path
- Integrated DC Power Detector

Applications

- Access Points
- Wireless Routers
- Client Equipment
- Customer Premise Equipment
- Internet of Things

Ordering Information

Part Number	Description
QPF4530SB	Sample bag with 5 pieces
QPF4530SQ	Sample bag with 25 pieces
QPF4530SR	7" reel with 100 pieces
QPF4530TR13-5K	13" reel with 5,000 pieces
QPF4530PCK-01	Assembled Evaluation Board

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 1B (500V)	ANSI/ESD/JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3 (1kV)	JESD22-C101
MSL – Moisture Sensitivity Level	Level 3	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.

Package lead plating: Electroless Ni/Electroless Pd/Immersion Au (ENEPIG)

RoHS Compliance

This part is compliant with the 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:

- Lead free
- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C₁₅H₁₂Br₄O₂) Free
- SVHC Free



Contact Information

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

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