



# QPF4200

## Wi-Fi Front End Module

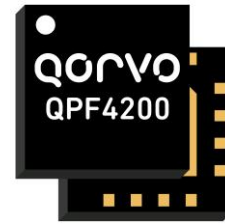
### Product Overview

The Qorvo® QPF4200 is an integrated front end module (FEM) designed for Wi-Fi 6 (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 5 V 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.

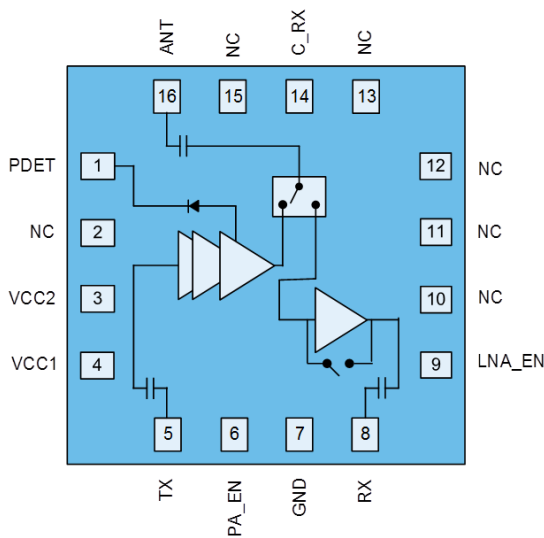
Integrated die level filtering for 2<sup>nd</sup> and 3<sup>rd</sup> harmonics as well as 5 GHz rejection for DBDC operation are included.

The QPF4200 integrates a 2.4 GHz power amplifier (PA), regulator, single pole two throw switch (SP2T), bypassable low noise amplifier (LNA) and DC power detector into a single device



16 Pin 3x3 mm Laminate Package

### Functional Block Diagram



Top View

### Key Features

- 2412-2484 MHz
- P<sub>OUT</sub> = +19 dBm MCS11 HE40 -43 dB Dynamic EVM
- P<sub>OUT</sub> = +21 dBm MCS9 VHT40 -35 dB Dynamic EVM
- P<sub>OUT</sub> = +22.5 dBm MCS7 VHT40 -30 dB Dynamic EVM
- P<sub>OUT</sub> = +25 dBm HT20 MCS0 Spectral Mask Compliance
- P<sub>OUT</sub> = +26 dBm 11b Spectral Mask Compliance
- Optimized for +5 V Operation
- 33 dB Tx Gain
- 2.1 dB Noise Figure
- 15.5 dB Rx Gain & 6 dB Bypass Loss
- 25 dB 5 GHz Rejection on Rx Path
- Integrated DC Power Detector

### Applications

- Access Points
- Wireless Routers
- Residential Gateways
- Customer Premise Equipment
- Internet of Things

### Ordering Information

Part Number	Description
QPF4200SB	Sample bag with 5 pieces
QPF4200SQ	Sample bag with 25 pieces
QPF4200SR	7" reel with 100 pieces
QPF4200TR13-5K	13" reel with 5,000 pieces
QPF4200EVB-01	Assembled Evaluation Board



## Handling Precautions

# QPF4200

## Wi-Fi Front End Module

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 1C (1kV)	ANSI/ESD/JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3 (1kV)	ANSI/ESD/JEDEC JS-002
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: Electrolytic plated Au over Ni

## 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:

- Product uses RoHS Exemption 7c-I to meet RoHS Compliance requirements.
- PFOS Free
- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C<sub>15</sub>H<sub>12</sub>Br<sub>4</sub>O<sub>2</sub>) Free
- SVHC Free

## Contact Information

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

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**Email:** [customer.support@qorvo.com](mailto:customer.support@qorvo.com)

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