



# QPF4230

## Wi-Fi Front End Module

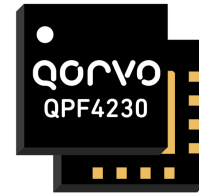
### Product Overview

The Qorvo® QPF4230 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 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.

Integrated die level filtering for 2nd and 3rd harmonics as well as 5 GHz rejection for DBDC operation are included. For power control feedback, a DC power detector which has voltage output has been integrated.

The QPF4230 integrates a 2.4GHz power amplifier (PA), regulator, single pole three throw switch (SP3T), low noise amplifier (LNA) and coupler into a single device.

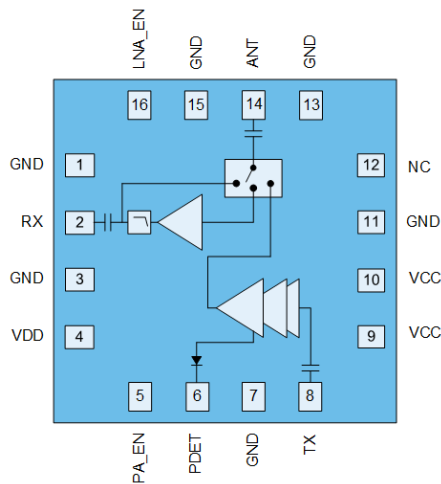


16 Pin 3x3 mm Laminate Package

### Key Features

- 2412-2484MHz
- $P_{OUT} = +14\text{dBm}$  MCS11 HE40 -43dB Dynamic EVM
- $P_{OUT} = +17\text{dBm}$  MCS9 VHT40 -35dB Dynamic EVM
- $P_{OUT} = +18\text{dBm}$  MCS7 HT20/40 -30dB Dynamic EVM
- $P_{OUT} = +21\text{dBm}$  MCS0 HT20 Spectral Mask Compliance
- Optimized for +3.3V Operation
- 0.5W Power Consumption at  $P_{OUT} = +18\text{dBm}$
- 33dB Tx Gain
- 2.1dB Noise Figure
- 15dB Rx Gain & 6dB Bypass Loss
- 15dB 5GHz Rejection on Rx Path
- Integrated DC Power Detector

### Functional Block Diagram



Top View

### Applications

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

### Ordering Information

| Part Number    | Description                |
|----------------|----------------------------|
| QPF4230SB      | Sample bag with 5 pieces   |
| QPF4230SQ      | Sample bag with 25 pieces  |
| QPF4230SR      | 7" reel with 100 pieces    |
| QPF4230TR13-5K | 13" reel with 5,000 pieces |
| QPF4230EVB-01  | Assembled Evaluation Board |

## Handling Precautions

| Parameter                        | Rating           | Standard              |
|----------------------------------|------------------|-----------------------|
| ESD – Human Body Model (HBM)     | Class 1B (750V)  | ANSI/ESD/JEDEC JS-001 |
| ESD – Charged Device Model (CDM) | Class C2b (750V) | 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:

- Lead 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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