



QPF4206B

Wi-Fi Front End Module

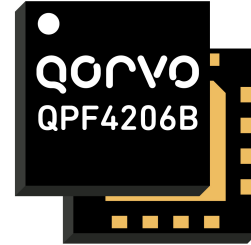
Product Overview

The Qorvo® QPF4206B 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 5V 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. .

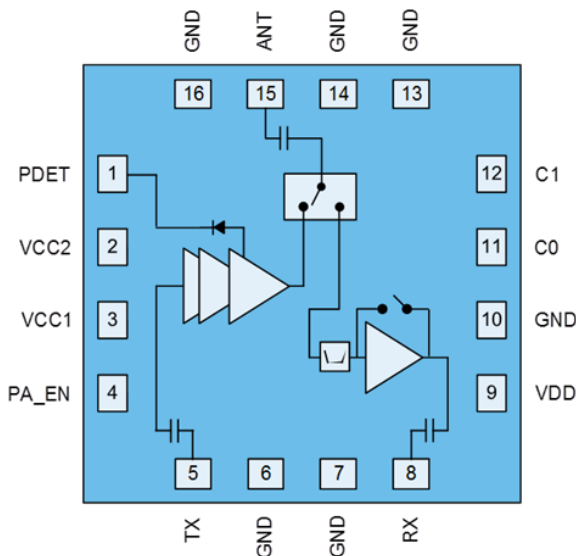
Another key feature is the integration of a logarithmic power detector which enables power accuracy at lower powers.

The QPF4206B integrates a 2GHz power amplifier (PA), regulator, single pole two throw switch (SP2T), and a bypassable low noise amplifier (LNA).



16 Pin 3x3 mm Laminate Package

Functional Block Diagram



Key Features

- 2412 – 2484 MHz
- P_{OUT} = +19dBm MCS11 HE40 -43dB Dynamic EVM
- P_{OUT} = +21dBm MCS9 VHT40 -35dB Dynamic EVM
- P_{OUT} = +22.5dBm MCS7 HT20 -30dB Dynamic EVM
- P_{OUT} = +25dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +5 V Operation
- 33 dB Tx Gain
- 2.1 dB Noise Figure
- 15 dB Rx Gain & 6 dB Bypass Loss
- 25 dB 5 GHz Rejection on Rx Path
- Broad Range Integrated DC Power Detector

Applications

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

Ordering Information

| Part Number | Description |
|-----------------|----------------------------|
| QPF4206BSB | Sample bag with 5 pieces |
| QPF4206BSQ | Sample bag with 25 pieces |
| QPF4206BSR | 7" reel with 100 pieces |
| QPF4206BTR13-5K | 13" reel with 5000 pieces |
| QPF4206BEVB01 | Assembled Evaluation Board |

Handling Precautions

| 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.
- 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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