

# QPF4216B

## Wi-Fi® Front End Modules

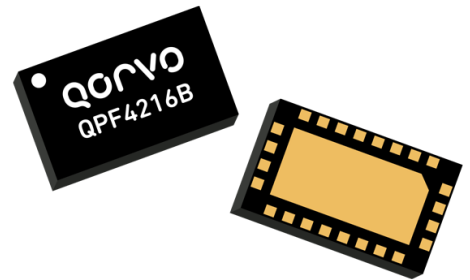
### Product Overview

05-13-2021

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## Description

Qorvo QPF4216B Wi-Fi® Front End Modules are integrated Front End Modules (FEM) designed for Wi-Fi 802.11ax systems. The compact form factor and integrated matching minimize the layout area in the application. The performance of these front end modules are 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. The receiver path matches the optimal technologies to maximize Rx sensitivity through noise figure performance that is consistent over a wider variety of conditions. This receiver path is pinned out so external filtering be added in the optimal position and integrated die level filtering for 2nd and 3rd harmonics as well as 5GHz rejection for DBDC operation which is included.



The key feature of these front end modules is the integration of a logarithmic power detector which enables power control across the entire power spectrum for applications which use higher gain antennas or end users wanting to reduce device calibration time in production. These front end modules integrate a 2.4GHz Power Amplifier (PA), regulator, Single Pole Two Throw switch (SP2T), by passable Low Noise Amplifier (LNA) into a single device. The QPF4216B Wi-Fi® front end modules operate at 5V supply voltage and 2400MHz to 2500MHz frequency range. Typical applications include access points, wireless routers, residential gateways, customer premise equipment, and Internet of Things (IoT).

## Features

- Integrated quasi-log power detector
- Optimized for 5V operation
- RoHS compliant
- Lead and halogen free

## Specifications

- 2400MHz to 2500MHz operating frequency range
- $P_{OUT} = 21.5\text{dBm}$  MCS11 HE40 -43dB dynamic EVM
- $P_{OUT} = 22\text{dBm}$  MCS11 VHT40 -40dB dynamic EVM
- $P_{OUT} = 24\text{dBm}$  MCS9 VHT40 -35dB dynamic EVM
- $P_{OUT} = 25\text{dBm}$  MCS7 HT20/40 -30dB dynamic EVM
- $P_{OUT} = 26\text{dBm}$  MCS0 HT20 spectral mask compliance
- 32dB Tx gain and 16dB Rx gain
- 1.8dB noise figure
- 7.5dB bypass loss
- 20dB 5GHz rejection on Rx path

## Applications

- Access points
- Wireless routers
- Residential gateways
- Customer premise equipment
- Internet of Things (IoT)

## Mouser Part Number(s)

[View All Parts](#)

To learn more, visit <https://www.mouser.com/new/qorvo/qorvo-qpf4216b-wi-fi-front-end-module/>