



# QPF4800

## Wi-Fi Front End Module

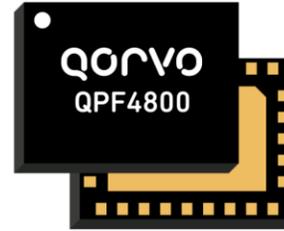
### Product Overview

The Qorvo® QPF4800 is an integrated dual band front end module (FEM) designed for Wi-Fi 6 systems. The compact form factor and integrated matching minimizes layout area in the application.

Performance is focused on optimizing the 2.4GHz and 5GHz PAs 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.

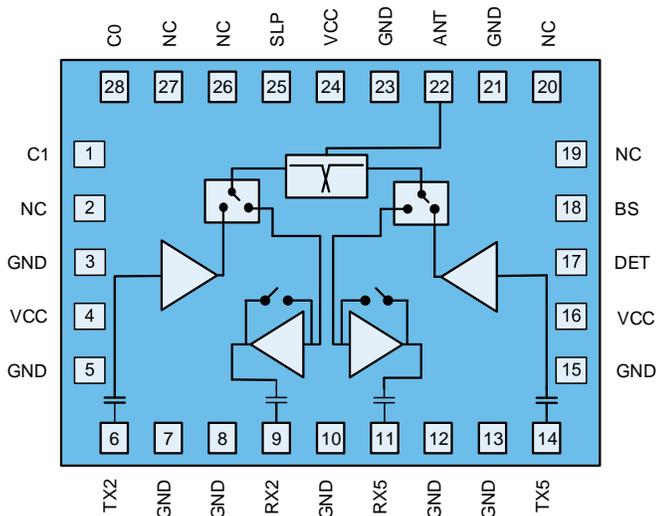
Another key feature is the broad range integrated DC power detector which enables power accuracy at lower powers.

The QPF4800 integrates a 2.4GHz and 5GHz power amplifier (PA), regulator, two single pole two throw switches (SP2T), diplexer, and 2.4GHz and 5GHz bypassable low noise amplifiers (LNA).



28 Pin 4x3 mm Laminate Package

### Functional Block Diagram



### Key Features

- 5150-5925MHz & 2412-2484MHz
- 5GHz P<sub>OUT</sub> = +15dBm MCS11 HE80 -43dB Dynamic EVM
- 5GHz P<sub>OUT</sub> = +21dBm MCS9 VHT80 -35dB Dynamic EVM
- 5GHz P<sub>OUT</sub> = +23dBm MCS0 HT20 Spectral Mask Compliance
- 2.4GHz P<sub>OUT</sub> = +19dBm MCS11 HE40 -43dB Dynamic EVM
- 2.4GHz P<sub>OUT</sub> = +23dBm MCS8 HT40 -30dB Dynamic EVM
- 2.4GHz P<sub>OUT</sub> = +25dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +5.0V Operation
- 5GHz 29dB & 2.4GHz 33dB Tx Gain
- 5GHz 2.6dB & 2.4GHz 2.5dB Noise Figure
- 14dB Rx Gain
- 5GHz 7.5dB & 2.4GHz 6.5dB Bypass Loss
- Broad Range Integrated DC Power Detector

### Applications

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

### Ordering Information

Part Number	Description
QPF4800SB	Sample bag with 5 pieces
QPF4800SQ	Sample bag with 25 pieces
QPF4800SR	7" reel with 100 pieces
QPF4800TR13-5K	13" reel with 5,000 pieces
QPF4800EVB-01	Assembled Evaluation Board

## Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 1C (1000V)	ANSI/ESD/JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3 (1000V)	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 (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:

**Web:** [www.qorvo.com](http://www.qorvo.com)

**Tel:** 1-844-890-8163

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

## Important Notice

The information contained herein is believed to be reliable; however, Qorvo makes no warranties regarding the information contained herein and assumes no responsibility or liability whatsoever for the use of the information contained herein. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for Qorvo products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. **THIS INFORMATION DOES NOT CONSTITUTE A WARRANTY WITH RESPECT TO THE PRODUCTS DESCRIBED HEREIN, AND QORVO HEREBY DISCLAIMS ANY AND ALL WARRANTIES WITH RESPECT TO SUCH PRODUCTS WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

Without limiting the generality of the foregoing, Qorvo products are not warranted or authorized for use as critical components in medical, life-saving, or life-sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.

Copyright 2019 © Qorvo, Inc. | Qorvo is a registered trademark of Qorvo, Inc.