



QPF7250

Wi-Fi 7 edgeBoost integrated Front End Module

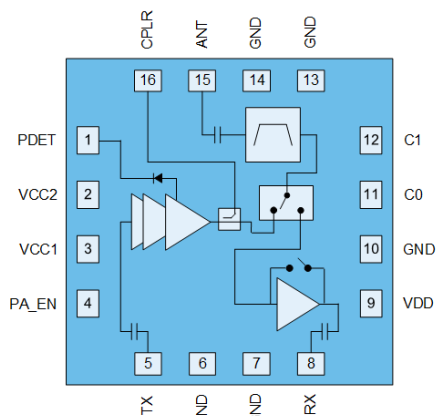
Product Overview

The Qorvo® QPF7250 is an integrated front end module (iFEM) designed for Wi-Fi 7 (802.11be) systems which marries the advantages of active components with edgeBoost filter technology. The compact form factor and integrated matching minimizes layout area in the application and greatly reduces the number of external components.

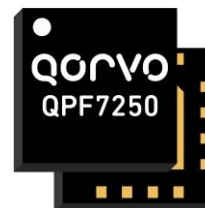
Performance is focused on optimizing the PA for a 5V supply voltage that conserves power consumption while maintaining the highest linear output power and leading edge throughput across all Wi-Fi channels 1 through 11 without need to reduce transmit power to meet the FCC regulatory limits. Receive path matches the optimal technologies to maximize Rx sensitivity through noise figure performance that is consistent over a wider variety of conditions.

The QPF7250 integrates a 2.4 GHz power amplifier (PA) with DC & RF power detectors, FCC edgeBoost BAW filter, transmit-receive switch (SP2T) and bypassable low noise amplifier (LNA) into a single device.

Functional Block Diagram



Top View



16 Pad 3 x 3 mm Laminate Package

Key Features

- 2402-2472 MHz
- $P_{OUT} = +26$ dBm FCC Restricted Bandedge Compliance
- $P_{OUT} = +17$ dBm MCS13 EHT20 -47 dB Dynamic EVM
- $P_{OUT} = +19.5$ dBm MCS11 HE20 -43 dB Dynamic EVM
- $P_{OUT} = +23.5$ dBm MCS7 HT20/40 -30 dB Dynamic EVM
- $P_{OUT} = +26$ dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +5 V Operation
- 35 dB Tx Gain
- 2.7 dB Noise Figure
- 15.5 dB Rx Gain & 8.5 dB Bypass Loss
- Integrated RF & DC Power Detectors

Applications

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

Ordering Information

Part Number	Description
QPF7250SB	Sample bag with 5 pieces
QPF7250SR	7" reel with 100 pieces
QPF7250TR13	13" reel with 5,000 pieces
QPF7250EVB	Assembled Evaluation Board



QPF7250

Wi-Fi 7 edgeBoost integrated Front End Module

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 1B (500V)	ANSI/ESD/JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3 (1000V)	ANSI/ESD/JEDEC JS-002
MSL – Moisture Sensitivity Level	MSL 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: Electroless Ni/Electroless Pd/Immersion Au (ENEPIG)

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:

- Uses RoHS 7c-1 exemption
- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C₁₅H₁₂Br₄O₂) Free
- SVHC Free
- PFOS Free

Contact Information

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

Web: www.qorvo.com

Tel: 1-844-890-8163

Email: customer.support@qorvo.com

Important Notice

The information contained in this Data Sheet and any associated documents ("Data Sheet Information") is believed to be reliable; however, Qorvo makes no warranties regarding the Data Sheet Information and assumes no responsibility or liability whatsoever for the use of said information. All Data Sheet Information is subject to change without notice. Customers should obtain and verify the latest relevant Data Sheet Information before placing orders for Qorvo® products. Data Sheet Information or the use thereof does not grant, explicitly, implicitly or otherwise any rights or licenses to any third party with respect to patents or any other intellectual property whether with regard to such Data Sheet Information itself or anything described by such information.

DATA SHEET 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. Applications described in the Data Sheet Information are for illustrative purposes only. Customers are responsible for validating that a particular product described in the Data Sheet Information is suitable for use in a particular application.

© 2022 Qorvo US, Inc. All rights reserved. This document is subject to copyright laws in various jurisdictions worldwide and may not be reproduced or distributed, in whole or in part, without the express written consent of Qorvo US, Inc. | QORVO® is a registered trademark of Qorvo US, Inc.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Qorvo:

[QPF7250EVB](#) [QPF7250SR](#)