



QPF7250

Wi-Fi 7 edgeBoost integrated Front End Module

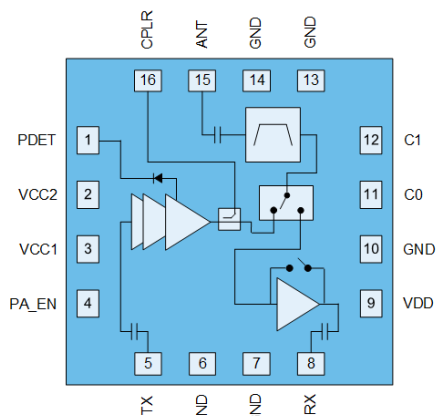
Product Overview

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.

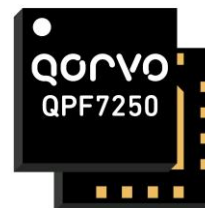
Performance is focused on optimizing the PA for a 5V supply voltage that conserves power consumption while maintaining the highest linear output power and leading edge throughput across all Wi-Fi channels 1 through 11 without need to reduce transmit power to meet the FCC regulatory limits. Receive path 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



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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:

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