

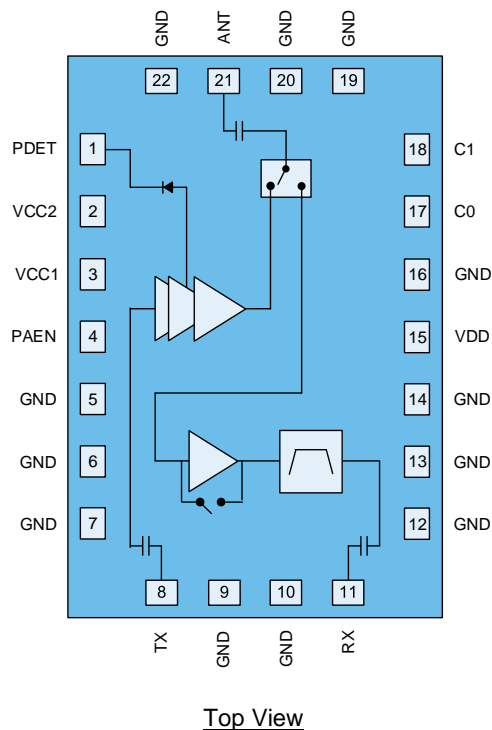
General Description

The QPF7221 provides a complete integrated solution in a single front end module (FEM) for Wi-Fi 802.11b/g/n/ac/ax systems. The small form factor and integrated matching minimizes layout area in the application and greatly reduces the number of external components.

The FEM allows true 5V supply without any modifications to the supply lines and performance is a balance of maximizing on highest linear output power and leading edge throughput. The FEM also provides state of the art LTE coexistence Rx immunity for maximum range and coverage by integrating high performance temperature stable BAW filtering on receive chain.

The QPF7221 integrates a 2GHz power amplifier (PA), single pole two throw switch (SP2T) and bypassable low noise amplifier (LNA) and an Rx BAW filter into a single device.

Functional Block Diagram



22 Pad 3 x 4.5 x 1 mm Laminate Package

Product Features

- 2.4GHz Wi-Fi Channel 1 through 13
- Integrated Rx coexistence BAW with 40 dB rejection in LTE bands & 5GHz
- $P_{OUT} = +22\text{dBm}$ MCS7 HT40 -30dB Dynamic EVM
- $P_{OUT} = +21\text{dBm}$ MCS8 HT40 -35dB Dynamic EVM
- $P_{OUT} = +18\text{dBm}$ MCS11 HE40 -43dB Dynamic EVM
- $P_{OUT} = +25\text{dBm}$ MCS0 Spectral Mask Compliance
- Optimized for +5 V supply (supports 3.3V operation)
- 34 dB Tx Gain
- 2.0 dB Noise Figure
- 15 dB Rx Gain & 10.5 dB Bypass Loss

Applications

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

Ordering Information

Part No.	Description
QPF7221SB	Sample bag with 5 pieces
QPF7221SQ	Sample bag with 25 pieces
QPF7221SR	7" reel with 100 pieces
QPF7221TR13	13" reel with 5000 pieces
QPF7221PCK-01	Assembled Evaluation Board

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 1C	ANSI/ESDA/JEDEC JS-001
ESD – Charged Device Model (CDM)	Class C3	ANSI/ESDA/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 temp.) and tin/lead (245°C max. reflow temp.) soldering processes. Solder profiles available upon request.

Contact plating: NiAu

RoHS Compliance

This part is compliant with 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:

- Halogen Free (Chlorine, Bromine)
- Antimony Free
- TBBP-A (C₁₅H₁₂Br₄O₂) Free
- PFOS Free
- SVHC Free

Contact Information

For the latest specifications, additional product information, worldwide sa

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Email: customer.support@qorvo.com

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