



QPF4532

Wi-Fi 6 Front End Module

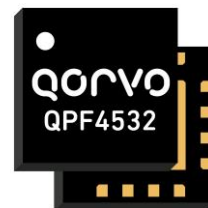
Product Overview

The Qorvo® QPF4532 is an integrated front end module (FEM) designed for Wi-Fi 6 (802.11ax) systems. The compact form factor and integrated matching minimizes layout area in the application.

Performance is focused on optimizing the PA for a 3.3 V 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.

Integrated die level filtering for 2nd and 3rd harmonics as well as 2.4 GHz rejection for DBDC operation are included. For application feedback, an DC power detector is integrated in the package providing a voltage that is proportional to the output power from the transmit path.

The QPF4532 integrates a 5 GHz power amplifier (PA), single pole two throw switch (SP2T) and bypassable low noise amplifier (LNA) into a single device.

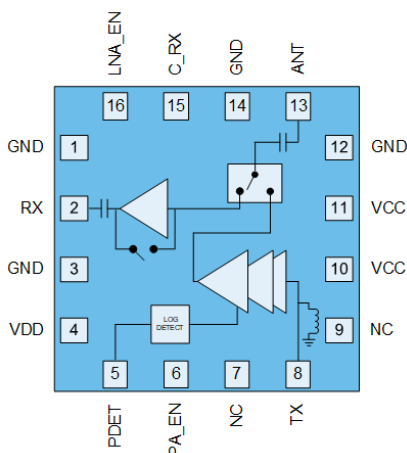


16 Pad 2.5 x 2.5 mm Laminate Package

Key Features

- 5150 – 5850 MHz
- $P_{OUT} = +15$ dBm MCS11 HE160 -43 dB Dynamic EVM
- $P_{OUT} = +17$ dBm MCS11 HE80 -43 dB Dynamic EVM
- $P_{OUT} = +21$ dBm MCS9 VHT80/160 -35 dB Dynamic EVM
- $P_{OUT} = +25$ dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +5 V Operation
- 31 dB Tx Gain
- 2 dB Noise Figure
- 13.5 dB Rx Gain & 8 dB Bypass Loss
- 25 dB 2.4 GHz Rejection on Rx Path
- Integrated DC Power Detector

Functional Block Diagram



Top View

Applications

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

Ordering Information

Part Number	Description
QPF4532SB	Sample bag with 5 pieces
QPF4532SR	7" reel with 100 pieces
QPF4532TR13	13" reel with 10,000 pieces
QPF4532EVB	Assembled Evaluation Board

Handling Precautions

Parameter	Rating	Standard
ESD – Human Body Model (HBM)	Class 2 (2000V)	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



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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:

- Lead Free
- 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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