



# QPF4632

## Wi-Fi 6E Front End Module

### Product Overview

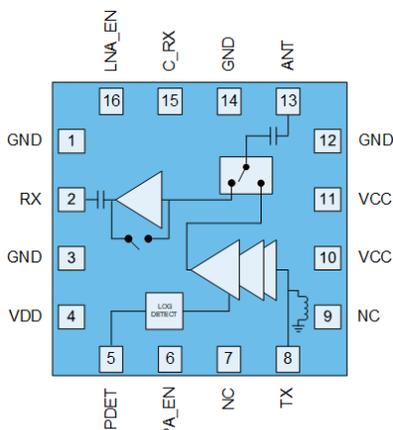
The Qorvo® QPF4632 is an integrated front end module (FEM) designed for Wi-Fi 6 & 6E (802.11ax) systems. The small form factor and integrated matching minimizes layout area in the application.

Performance is focused on optimizing the PA for a 3.3V supply voltage that conserves power consumption while maintaining the highest linear output power and leading edge throughput. This is done across a wide bandwidth enabling operation in all channels from UNII5-8 (5.9 to 7.1GHz) on the fly without the need for any logic switching.

Integrated die level filtering for 2nd and 3rd harmonics as well as 2.4 GHz rejection for DBDC operation are included. A coupler RF power detector as well as a voltage detector are provided for application feedback

The QPF4632 integrates a 5.9-7.1 GHz power amplifier (PA), single pole two throw switch (SP2T) and bypassable low noise amplifier (LNA) into a single device.

### Functional Block Diagram



Top View



16 Pad 2.5 x 2.5 mm Laminate Package

### Key Features

- 5945 – 7125 MHz
- $P_{OUT} = +16$  dBm MCS11 HE160 -43dB Dynamic EVM
- $P_{OUT} = +17$  dBm MCS11 HE80 -43dB Dynamic EVM
- $P_{OUT} = +24$  dBm MCS0 HE20 Spectral Mask Compliance
- Optimized for +3.3 V Operation
- 31 dB Tx Gain
- 2 dB Noise Figure
- 14 dB Rx Gain & 8 dB Bypass Loss
- 25 dB 2.4 GHz Rejection on Rx Path
- Integrated DC Logarithmic Power Detector

### Applications

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

### Ordering Information

| Part Number | Description                |
|-------------|----------------------------|
| QPF4632SB   | Sample bag with 5 pieces   |
| QPF4632SR   | 7" reel with 100 pieces    |
| QPF4632TR13 | 13" reel with 5,000 pieces |
| QPF4632EVB  | Assembled Evaluation Board |



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## Wi-Fi 6E Front End Module

### Handling Precautions

| Parameter                        | Rating            | Standard              |
|----------------------------------|-------------------|-----------------------|
| ESD – Human Body Model (HBM)     | Class 1C (1,000V) | ANSI/ESD/JEDEC JS-001 |
| ESD – Charged Device Model (CDM) | Class C3 (1,000V) | 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: 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 (C<sub>15</sub>H<sub>12</sub>Br<sub>4</sub>O<sub>2</sub>) Free
- SVHC Free
- PFOS 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)

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