



RFFM4558

Wi-Fi Front End Module

Product Overview

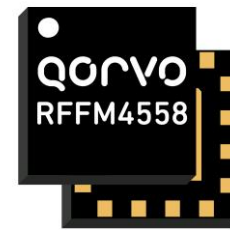
The Qorvo® RFFM4558 is an integrated front end module (FEM) designed for Wi-Fi 802.11ac systems. The compact form factor and integrated matching minimizes layout area in the application.

Performance is focused on optimizing the power amplifier for a 5V 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.

A DC power detector which has voltage output is integrated as a power control feedback option.

The RFFM4558 integrates a 5 GHz power amplifier (PA), regulator, single pole two throw switch (SP2T), and bypassable low noise amplifier (LNA) into a single device

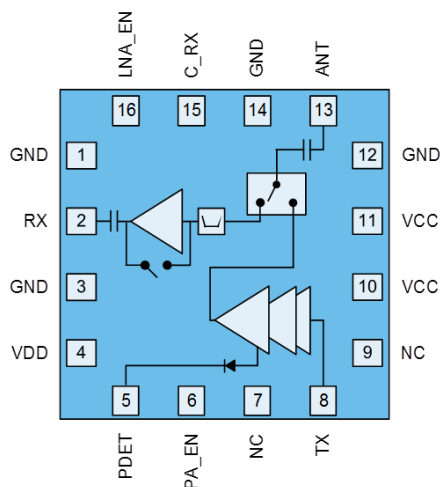


16 Pad 2.5x2.5 mm Laminate Package

Key Features

- 5180 – 5925 MHz
- $P_{OUT} = +20.5$ dBm MCS9 VHT80 -35dB Dynamic EVM
- $P_{OUT} = +21$ dBm MCS7 HT20/40 -30dB Dynamic EVM
- $P_{OUT} = +24$ dBm MCS0 HT20 Spectral Mask Compliance
- Optimized for +5 V Operation
- 32 dB Tx Gain
- 2.5 dB Noise Figure
- 14 dB Rx Gain & 5 dB Bypass Loss
- 15 dB 2.4 GHz Rejection on Rx Path
- Integrated DC Power Detector

Functional Block Diagram



Top View

Applications

- Access Points
- Wireless Routers
- Client Equipment
- Customer Premise Equipment
- Internet of Things

Ordering Information

Part Number	Description
RFFM4558SB	Sample bag with 5 pieces
RFFM4558SQ	Sample bag with 25 pieces
RFFM4558SR	7" reel with 100 pieces
RFFM4558TR7	7" reel with 2,500 pieces
RFFM4558TR13	13" reel with 10,000 pieces
RFFM4558PCK-410	Assembled Evaluation Board + 5 pcs Sample Bag

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 (1kV)	JESD22-C101
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 (C₁₅H₁₂Br₄O₂) Free
- SVHC Free



Contact Information

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

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