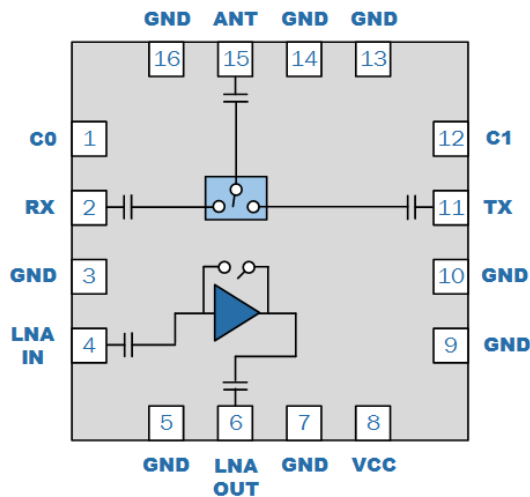


RFFM4554

Wi-Fi Integrated Front End Module
4.9GHz to 5.925GHz

The RFFM4554 is a front end module (FEM) designed for 802.11a/n/ac applications. The integrated single-pole double throw switch and low noise amplifier with bypass greatly reduces the layout area, bill of materials and manufacturability cost in the customer application. The RFFM4554 has a unique structure where the switch to LNA path has pins so filtering can be added in the ideal path for current Wi-Fi circuit applications. The device is provided in a 2.3mm x 2.3mm x 0.45mm 16-pin QFN package that meets or exceeds the power requirements of IEEE802.11a/n/ac Wi-Fi RF systems.



Functional Block Diagram

Ordering Information

RFFM4554SB	Standard 5-piece Sample Bag
RFFM4554SQ	Standard 25-piece Sample Bag
RFFM4554SR	Standard 100-piece Reel
RFFM4554TR7	Standard 2500-piece Reel
RFFM4554PCK401	Fully Assembled Evaluation Board



Package: QFN, 16-pin,
2.3mm x 2.3mm x 0.45mm

Features

- 13.5dB LNA Gain
- 5dB Bypass Loss
- 1.7dB Noise Figure
- TX to ANT path loss of 0.5dB
- Max Power at TX Input of 30dBm
- 2.4GHz Rejection
- Input and Output Matched to 50Ω
- Break out path between switch and LNA for optimal filter placement

Applications

- Customer Premise Equipment (CPE)
- Wireless Access Points, Gateways
- Routers
- Set-Top Box Applications
- Picocell/Femtocell
- Internet of Things

Pin Names and Descriptions

Pin	Name	Description
1	C0	Control pin 0. See truth table for proper voltage level.
2	RX	RF output port for the RX throw of the T/R switch. This port is matched to 50Ω and AC coupled internally
3	GND	Ground connection
4	LNAIN	RF input port for the LNA. This port is matched to 50Ω and AC coupled internally
5	GND	Ground connection
6	LNAOUT	RF output port for the LNA. This port is matched to 50Ω and AC coupled internally
7	GND	Ground connection
8	VCC	Supply voltage for the module. See applications schematic for bypassing components.
9	GND	Ground connection
10	GND	Ground connection
11	TX	RF input port for the TX throw of the T/R switch. This port is matched to 50Ω and AC coupled internally
12	C1	Control pin 1. See truth table for proper voltage level.
13	GND	Ground connection
14	GND	Ground connection
15	ANT	RF bidirectional antenna port matched to 50Ω and AC coupled
16	GND	Ground connection
Pkg Base	GND	Ground connection. The back side of the package should be connected to the ground plan though as short of a connection as possible. PCB vias under the device are recommended.