RFMD

*Preliminary*

# RF5824

3.3V, DUAL-BAND WLAN
POWER AMPLIFIER MODULE

## Typical Applications

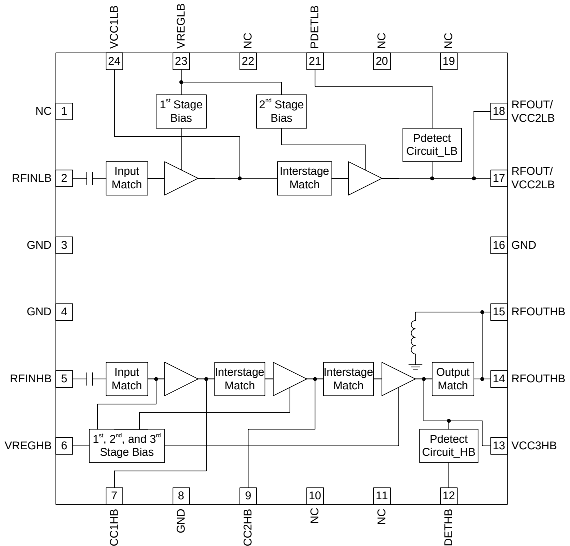
- IEEE802.11a/b/g and IEEE802.11n WLAN Applications
- Single-Chip RF Power Amplifier Module
- 2.5GHz and 5GHz ISM Bands Applications
- Wireless LAN Systems
- Portable Battery-Powered Equipment

## Product Description

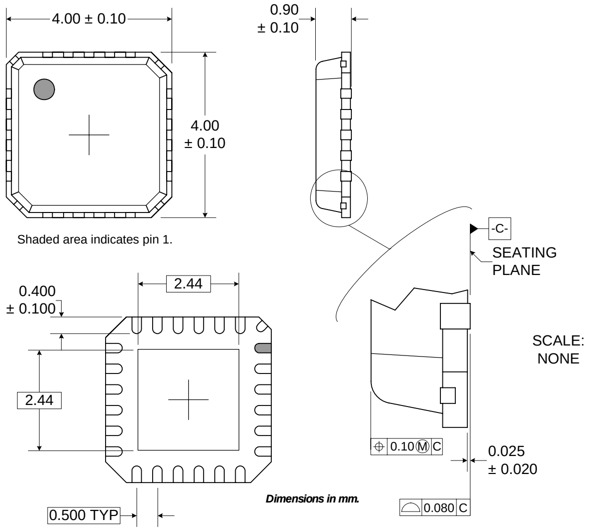
The RF5824 is a linear, medium-power, high-efficiency dual-band power amplifier module designed specifically for battery-operated WLAN applications such as PC cards, mini-PCI and compact flash applications. It is also designed to meet IEEE802.11a/b/g, IEEE802.11n, FCC, and ETSI requirements for operation within the 2.4GHz to 2.5GHz and 4.90GHz to 5.85GHz bands. The device is manufactured on an advanced InGaP GaAs Heterojunction Bipolar Transistor process, and has been designed for use as the final RF amplifier in both the 2GHz and 5GHz WLAN and other spread-spectrum transmitters. The device is packaged in a QFN, 24-pin, 4mmx4mmx0.9mm plastic package with back side ground. The RF5824 operates from a single supply and will be easily incorporated into WLAN and other designs with minimal external components.

### Optimum Technology Matching® Applied

☐ Si BJT
☐ Si Bi-CMOS
☑ InGaP/HBT
☐ GaAs HBT
☐ SiGe HBT
☐ GaN HEMT
☐ GaAs MESFET
☐ Si CMOS
☐ SiGe Bi-CMOS



Functional Block Diagram



Package Style: QFN, 24-pin, 4mmx4mm

## Features

- 5GHz Integrated Output Match
- 11a Current 155mA Typical
- 11g Current 120mA Typical
- Gain 27dB Typical for 11a and 11g
- EVM 3.5% TYP for 11g and 3.5% TYP for 11a (@ $P_{OUT}$ 11a/g=17dBm)
- Single Supply Voltage 2.8V to 4.0V

## Ordering Information

| | |
|---|---|
| RF5824 | 3.3V, Dual-Band WLAN Power Amplifier Module |
| RF5824PCBA-41X | Fully Assembled Evaluation Board |

RF Micro Devices, Inc.
7628 Thorndike Road
Greensboro, NC 27409, USA
Tel (336) 664 1233
Fax (336) 664 0454
http://www.rfmd.com

*Please contact*
*RF Micro Devices*
*Applications Engineering*
*at (336) 678-5570*
*for more information.*