



Broadband Low-Noise Amplifiers for WLAN and Digital Cellular Applications

Features:

- Low noise and high intercept point
- Adjustable bias current
- Power-down control
- Low insertion loss bypass feature (RF2370)
- 1.8 to 6.0V power supply operation

Applications:

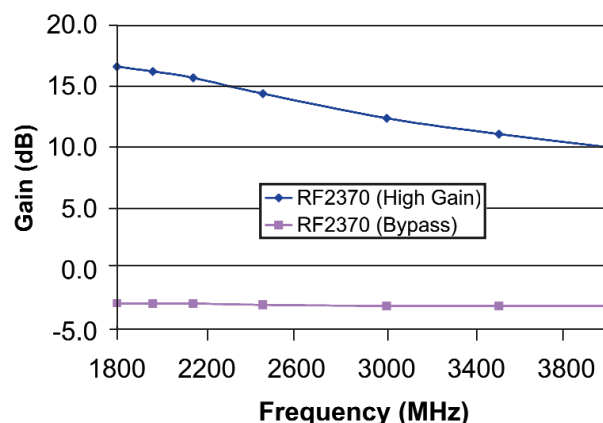
- WLAN LNA
- CDMA PCS LNA
- General purpose amplification

Developed for WLAN and digital cellular applications, RFMD® offers broadband low noise amplifiers (LNAs) with high intercept point, power-down control and adjustable bias current.

Both the RF2370 and RF2373 provide designers a low-cost, high-performance, single-stage LNA solution for a variety of front-end receiver applications. When used as a LNA, the bias for both the RF2370 and RF2373 can be set externally, which enables both solutions to be integrated easily into various applications. The RF2370 and RF2373 can both operate directly from a single cell Li-ion battery, and both feature power-down control for complete shut-down of the device.

The RF2370 functions as an outstanding, switchable front-end LNA. This solution, contained in a standard, low-cost SOT 6-lead plastic package, provides users the option of a bypass mode in which the LNA gain can be adjusted to preserve battery power and improve receiver dynamic range. RFMD's RF2373, contained in a low-cost SOT 5-lead plastic package, may also be used as a driver amplifier in the transmit chain of digital subscriber units where low transmit noise power is a concern.

RF2370 High Gain and Bypass Gain



At a Glance	Symbol	RF2370	RF2373	Note
Process		GaAs HBT	GaAs HBT	
Description		LNA with Bypass Mode	LNA/Driver PA	
Design Status		Preliminary	Production Released	
Frequency	MHz	900-4000	800-2500	
Supply Voltage	V _{CC}	1.8-6.0	1.8-6.0	
Gain	dB	13.0	15.0	Typical @ 2450 MHz
Noise Figure	dB	1.3	1.3	Typical @ 2450 MHz
Input IP3	dBm	+4.5 (higher with > I _{CC})	+9.5 (higher with > I _{CC})	Typical @ 2450 MHz
Current Drain	mA	7.0	10.0	
		RF2370 in Bypass Mode	RF2373 as Driver	
Gain	dB	-3.0	15.5	Typical
Noise Figure	dB	4.5	1.4	Typical
Input IP3	dBm	+14	+9.5	Typical
Current Drain	mA	2.0	18.0	
Supply Voltage	V _{CC}	3.0	3.0	V _{SELECT} Low = 0.8V V _{SELECT} High = 1.8V

Optimum Technology Matching® Strategy

RFMD's success has been driven in part by our deep design expertise in multiple semiconductor process technologies—AlGaAs HBT, SiGe, BiCMOS, CMOS and GaAs MESFET, as well as our newest processes, GaN, InGaP HBT and GaAs pHEMT—and our Optimum Technology Matching® (OTM) strategy. Through OTM, RFMD engineers match the appropriate process technology and device technology to each product according to the best possible combination of price and performance.

For sales or technical support, contact RFMD at **336-678-5570** or **sales-support@rfmd.com**.

7628 Thorndike Road, Greensboro, NC 27409-9421 | Phone 336-664-1233 | Fax 336-931-7454

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