



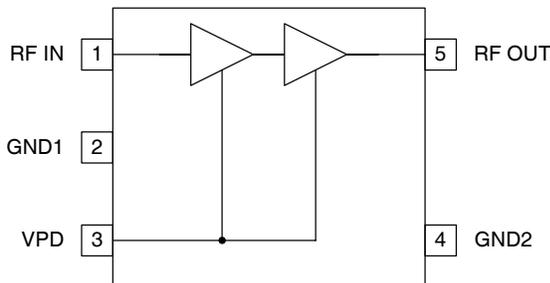
**3**  
GENERAL PURPOSE  
AMPLIFIERS (LNAs,  
HPAs, LINEAR AMPS)

**Features**

- Low Noise and High Intercept Point
- 18dB Gain
- Power Down Control
- Single 3.0V Power Supply
- PCS and W-CDMA Band Operation
- 1.8GHz to 2.5GHz Operation

**Applications**

- CDMA PCS LNA
- TDMA PCS LNA
- W-CDMA/CDMA2000 LNA
- General Purpose Amplification
- Commercial and Consumer Systems



Functional Block Diagram

**Product Description**

The RF2364 is a low noise amplifier with a high dynamic range designed for CDMA and TDMA PCS, as well as W-CDMA/CDMA2000 applications. The device functions as an outstanding front end low noise amplifier and the bias current can be set externally. The IC includes a power down feature used to completely turn-off the device and is featured in a standard SOT 5-lead plastic package.

**Ordering Information**

RF2364                      3V PCS Low Noise Amplifier  
 RF2364 PCBA            Fully Assembled Evaluation Board

**Optimum Technology Matching® Applied**

- |  |                                      |                                     |                                   |
|--|--------------------------------------|-------------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> GaAs HBT | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET         | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS    |                                   |
| <input type="checkbox"/> InGaP HBT           | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT     |                                   |

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## Absolute Maximum Ratings

Parameter	Rating	Unit
Supply Voltage	-0.5 to +8.0	V <sub>DC</sub>
Input RF Level	+10	dBm
Storage Temperature	-40 to +150	°C



Caution! ESD sensitive device.

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Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
<b>Operating Range</b>					
Overall Frequency Range	1930		1990	MHz	
Supply Voltage (V <sub>CC</sub> )	2.7	3.0	3.3	V	
Power Down Voltage (V <sub>PD</sub> )	2.7		2.9	V	For normal operation
			0.9	V	For power down operation
Current Consumption		17.0	23.5	mA	V <sub>CC</sub> =3.0V, Values reflect I <sub>CC</sub> +I <sub>PD</sub>
Power Down Current			10	μA	V <sub>CC</sub> =3.0V, V <sub>PD</sub> ≤0.9V
Operating Ambient Temperature	-40		+85	°C	
Input Impedance		50		Ω	
Output Impedance		50		Ω	
<b>Low Noise Amplifier Performance</b>					
					T=25°C
Power Gain		18	21	dB	V <sub>CC</sub> =3.0V, I <sub>CC</sub> =17 mA
Noise Figure		1.8		dB	
Input IP3		+5		dBm	V <sub>CC</sub> =3.0V
Input VSWR			2:1		
Output VSWR			2:1		With external matching components.
Input P1dB		-8.5		dBm	



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