



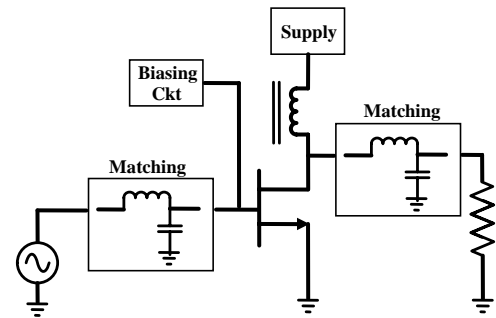
PCS/WCDMA band Low Noise Amplifier

RLW01

Description

The **RLW01** is 1.7 to 2.5 GHz high linearity GaAs Enhancement mode pHEMT Low Noise Amplifier IP Block .The device is designed for use in the IEEE 802.11b/g, PCS, WCDMA and WLAN system.

The die area of RLW01 is 0.7 mm x 0.7 mm, with on chip input and off chip output matching components. This makes it suitable for being packed in small SOT29 Packages. It requires a single +3.0 Volt supply and consumes only 12 mA current.



Applications

- PCS and WCDMA System
- WLAN/WiFi Systems
- ISM Band Systems

Key Features

- Low Current, Low Cost
- Noise Figure is less than 1 dB
- Can be optimized for a narrow band operation with off chip matching

Electrical Specification

Conditions: $V_{cc} = 3\text{ V}$ & $T_A = 25\text{ }^\circ\text{C}$

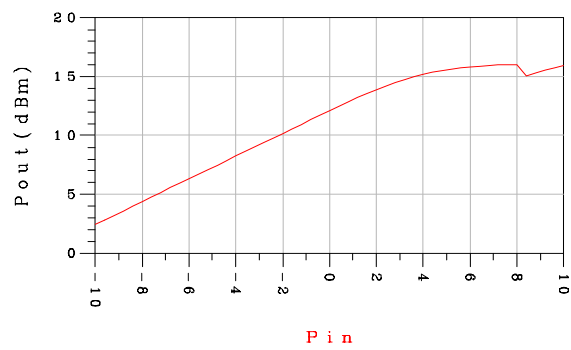
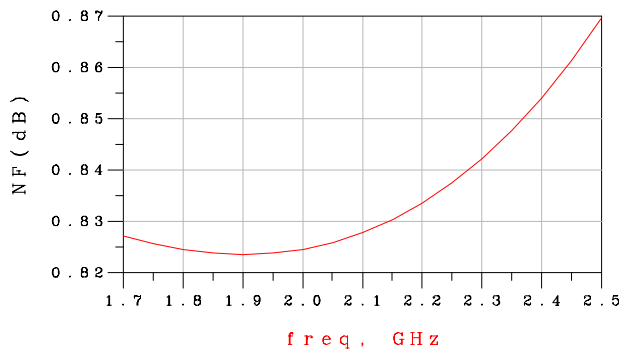
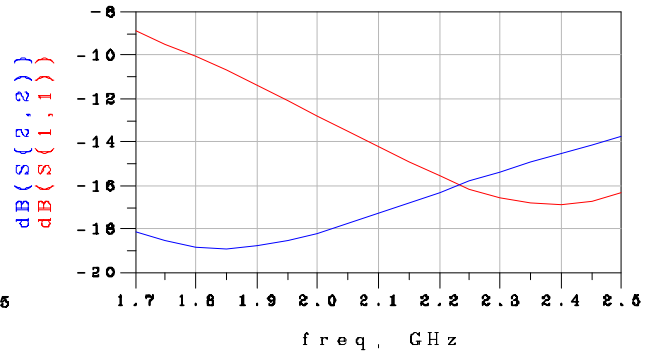
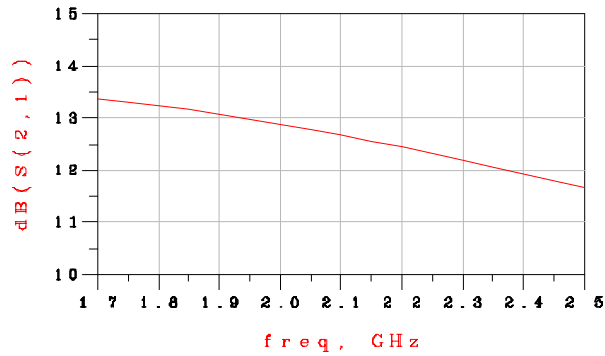
	Min	Typical	Max	Units
Frequency Range	1.7	2.2	2.5	GHz
Gain		12.5		dB
Input Return Loss		15		dB
Output Return Loss		15		dB
Noise Figure		0.85		dB
Power Output (P1dB)		15		dBm
Supply Voltage		3		V
Supply Current		12.4		mA



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Simulated results



Layout (0.7 mm x 0.7 mm)

