



Low Noise Amplifier for UWB Application

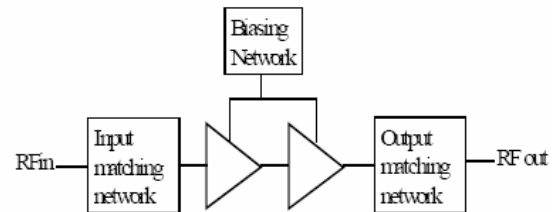
RULN01

Description

The **RULN01** is 3.0 to 10.0 GHz high efficiency GaAs Enhancement mode p-HEMT Low noise amplifier .The device is designed for 802.11a/b/g standard.

The maximum noise figure is 2 dB over the band. A single 3V and 12.8 mA current bias the LNA. No input and output matching components are required.

Functional Diagram



Applications

- UWB
- IEEE 802.11 a/b/g WLAN
- MMDS Band
- Cellular System
- WiFi Systems

Key Features

- Broadband Amplifier
- High Performance
- Low Current, Low Cost

Electrical Specification

Conditions: V_{cc} = 3 V & T_A=25 °C

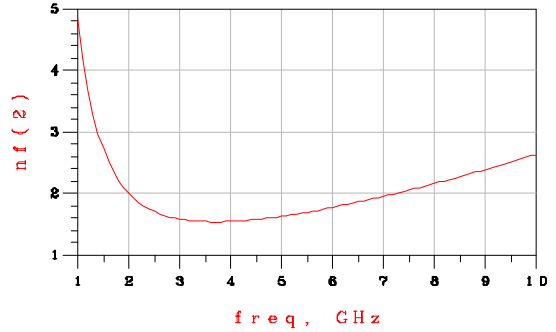
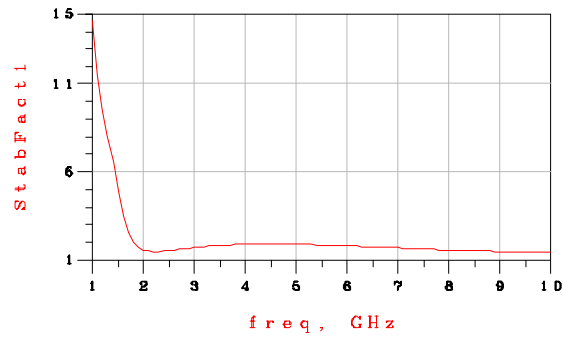
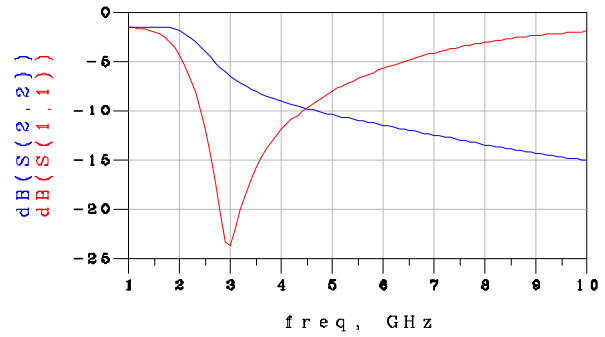
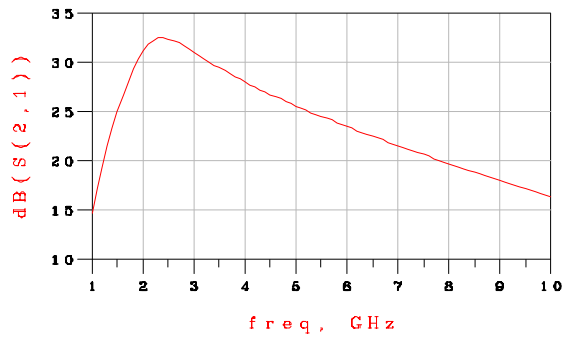
Parameter	Min	Typical	Max	Units
Frequency Range	3		10	GHz
Gain	18.96		31.45	dB
Noise Figure	1.6		1.9	dB
Power Output (P1dB)		6.8		dBm
Input Return Loss	16		5	dB
Output Return Loss	7.5	8	6.5	dB
Supply Current		12.8		mA
DC Voltage		3		V



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Measured results



Layout

