Driver Amplifier

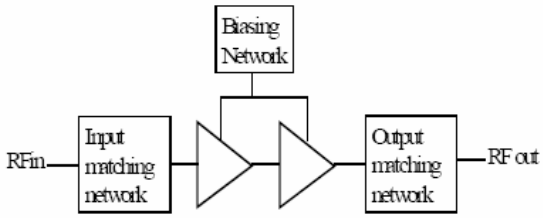
RGDA01

Description

The **RGDA01** is 2.0 to 6.0 GHz GaAs Enhancement mode psuedomorphic high electron mobility transistor Driver Amplifier. The device is designed for IEEE 802.11a/b/g, WLAN standards and Cellular system.

The driver amplifier can provide upto 20 dBm power output. The optimum performance of the chip can be achieved by some off chip matching. The part is biased with a single +3.3 V supply.

Functional Diagram



Applications

- IEEE 802.11 a/b/g WLAN
- WLAN MIMO system
- Cellular System
- ISM Band Systems

Key Features

- Broadband amplification
- Pout (P1 dB) is 20 dBm
- Highly Performance
- Small Size

Electrical Specification

Conditions: Vcc = 3.3 V & T_A=25 ^{0}C

Parameter	Min	Typical	Max	Units
Frequency Range	2.0		6.0	GHz
Gain	15	24		dB
Power Output (P1dB)		20		dBm
Input Return Loss	3		15	dB
Output Return Loss		7		dB
Supply Voltage		3.3		V
Supply Current		199		mA

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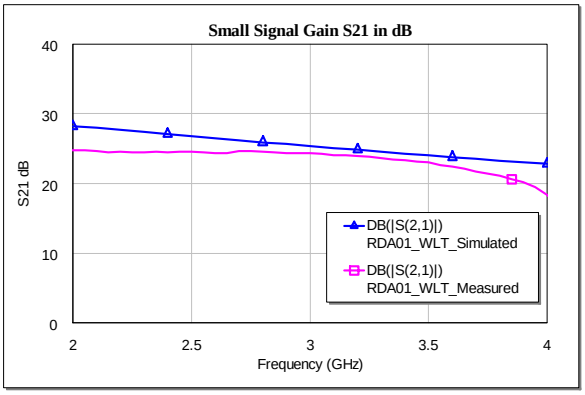
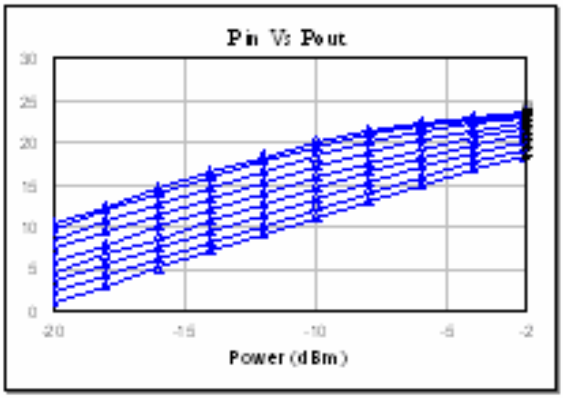
Simulated and Measured results

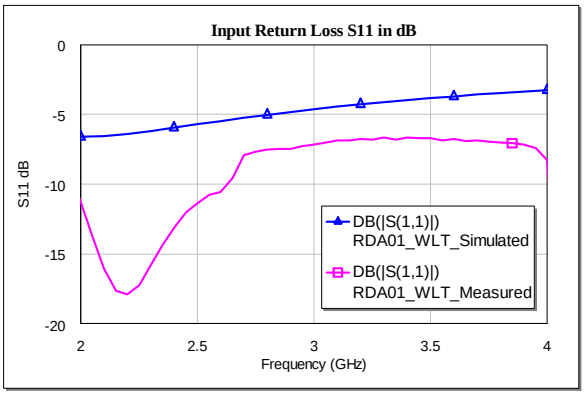
Gain Vs Freq



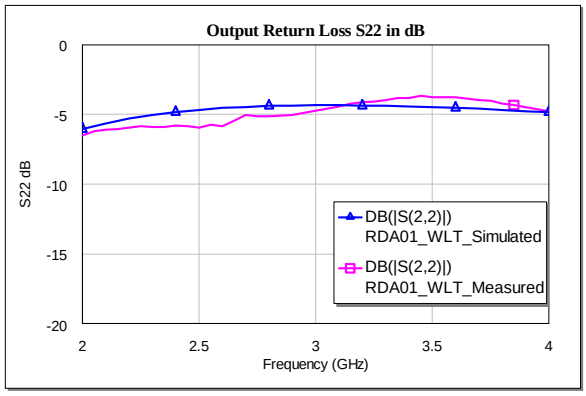
Pin Vs Pout (Simulated)



Input Return Loss Vs Freq



Output Return Loss Vs Freq



Layout