



### Driver Amplifier

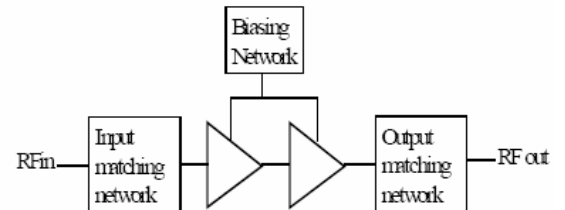
RTDA01

#### Description

The **RTDA01** is a 2.0 to 5.0 GHz; CMOS driver amplifier. The device is designed for the 802.11 a/b/g WLAN systems.

The driver amplifier gives 18 dBm Pout for the frequency range 2.0 to 5.0 GHz. The input and output matching is on chip which reduces the cost of the chip. The RTDA01 is biased with a single 3.3 V supply.

#### Functional Diagram



#### Applications

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

#### Key Features

- 2 to 5 GHz frequency range covered
- On chip matching

#### Electrical Specification

Conditions:  $V_{cc} = 3.3\text{ V}$  &  $T_A = 25\text{ }^\circ\text{C}$

Parameter	Min	Typical	Max	Units
Frequency Range	2		5	GHz
Gain	13.5		17.5	dB
Pout (@ P1 dB)		18		dBm
Input Return Loss		8		dB
Output Return Loss		10		dB
Supply Current		192.4		mA
DC Voltage		3.3		V

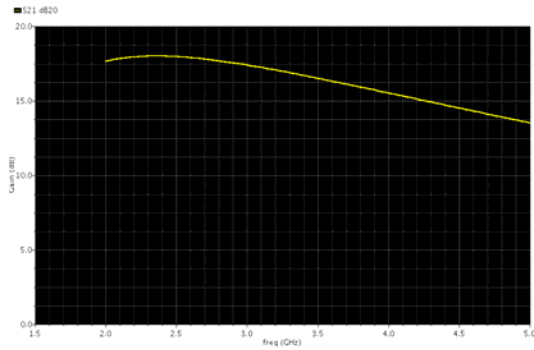


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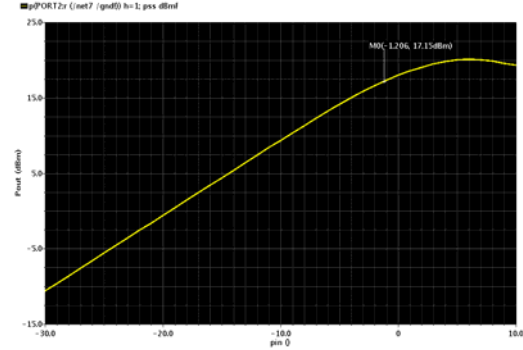
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Simulated results

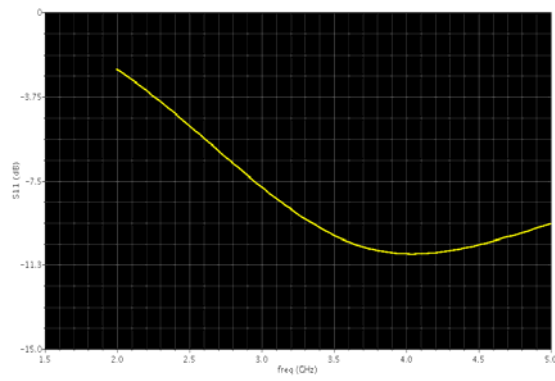
Gain Vs Freq



1 dB Compression Point



Input Return Loss Vs Freq



Ouput Return Loss Vs Freq

