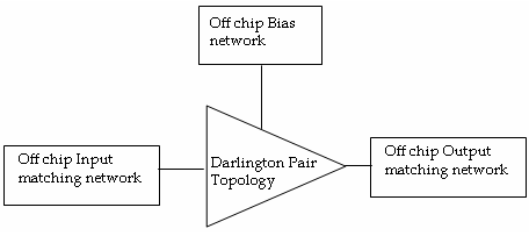
2-6GHz Driver Amplifier

RDA12

Description

The **RDA10** is 2.0 to 6.0 GHz GaAs Enhancement mode psuedomorphic high electron mobility transistors Driver Amplifier. The driver amplifier is design using Darlington Pair topology.

The driver amplifier can provide upto 16.8 dBm power output at 2GHz. The optimum performance of the chip can be achieved by tuning off chip matching. The part is biased with a single +3.3V supply.



Applications

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

Key Features

- Broadband amplification
- Pout (P1 dB @2GHz) is 16.8dBm
- Highly Performance
- Small Size

Electrical Specification

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

	Min	Typical	Max	Units
Frequency Range	2.0		6	GHz
Gain	13.4	14.5	14.9	dB
Gain Flatness		~1.5		dB
Power Output (P1dB) @2GHz		16.8		dBm
Input Return Loss		12		dB
Output Return Loss		10		dB
Supply Voltage		3.3		V
Supply Current		71.8		mA

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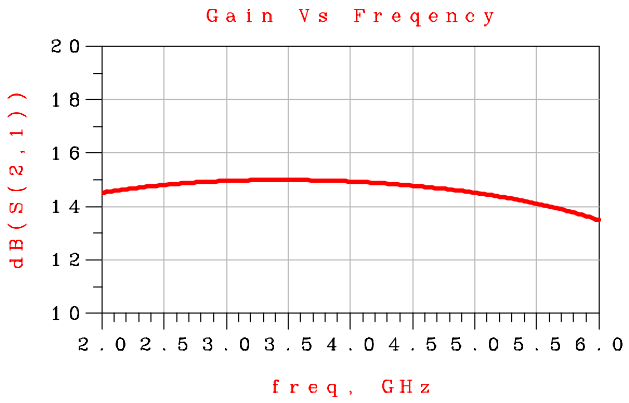
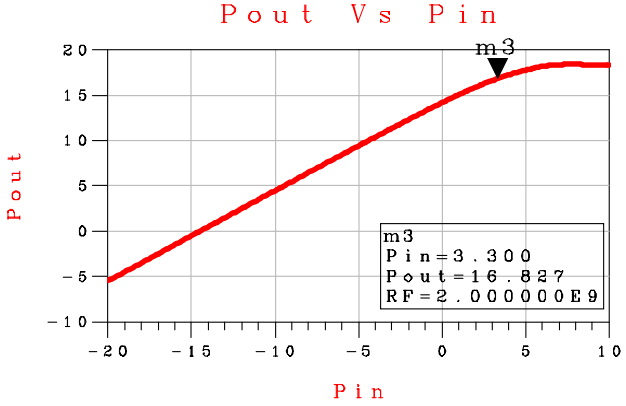
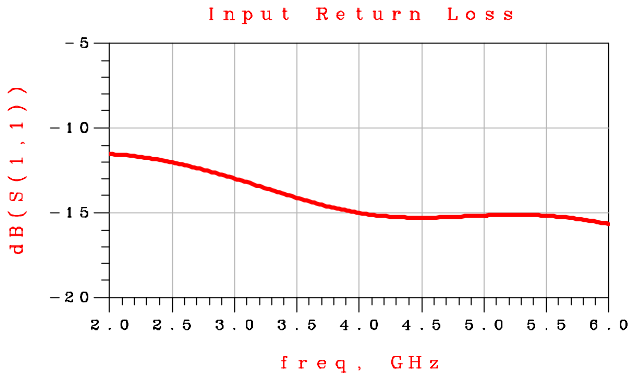
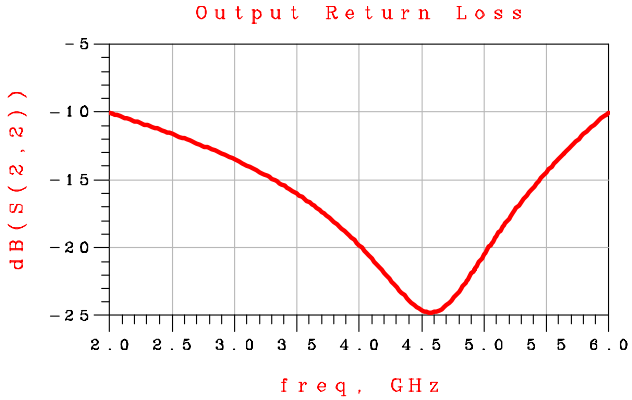
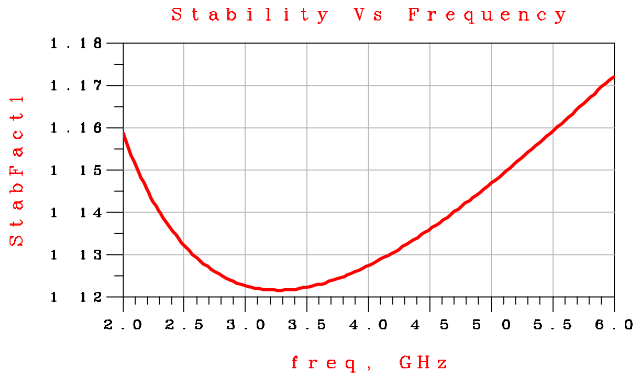
Simulated results

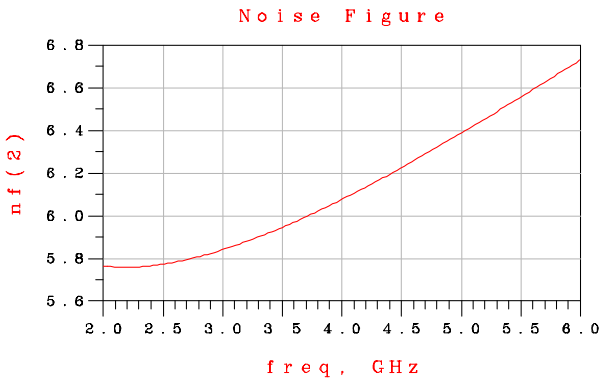












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Layout