Low Noise Amplifier

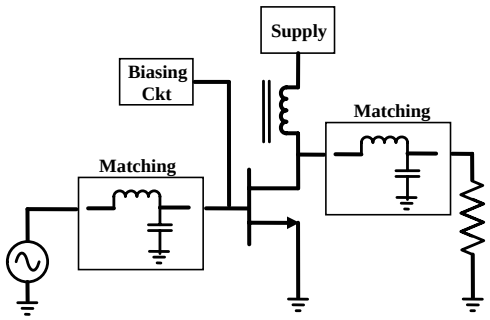
RGLNA10

Description

The **RGLNA10** is 7.0-26.0 GHz; Low Noise Distributed Amplifiers using GaAs pHEMT Technology. The self-biased amplifier provides 19 dB of gain and 14 dBm of output power at P1 dB gain compression while requiring only 86 mA from a single 3.0 V supply.

Gain flatness is excellent from 7.0-26.0 GHz for RADAR and test equipment applications.

Functional Diagram



Applications

- Satellite Communication.
- RADAR Applications.
- EW and ECM

Key Features

- Ultra Broadband Amplifier
- Low Cost
- High Performance
- 2 dB Gain Flatness over the band.

Electrical Specification

Conditions: Vcc = 3 V & T_A=25 ^{0}C

Parameter	Minimum	Typical	Maximum	Minimum	Typical	Maximum	Units
Frequency Range	7		16	16		26	GHz
Gain	19.7		20	20		18	dB
Gain Flatness		0.3			2		dB
Noise Figure	3.7		3	3		4	dB
Input Return Loss		12			13		dB
Output Return Loss		13			13		dB
Power Output (P1 dB)	13.5		14	14		14	dBm
OIP3	23.5		24	24		24	dBm
Supply Current		86			86		mA
DC Voltage		3			3		V

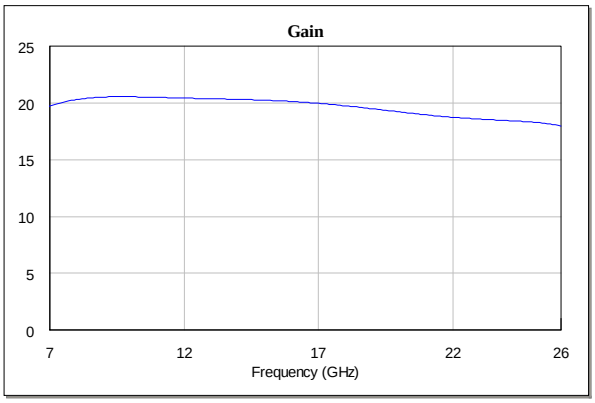
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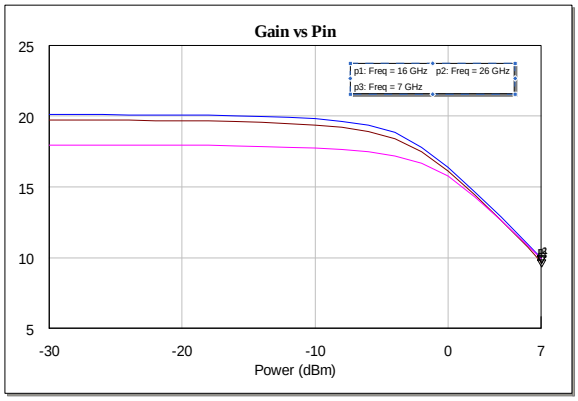
RGLNA10

Simulated results

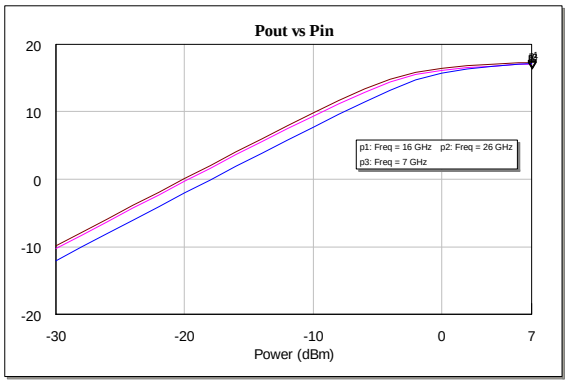
Gain Vs Freq



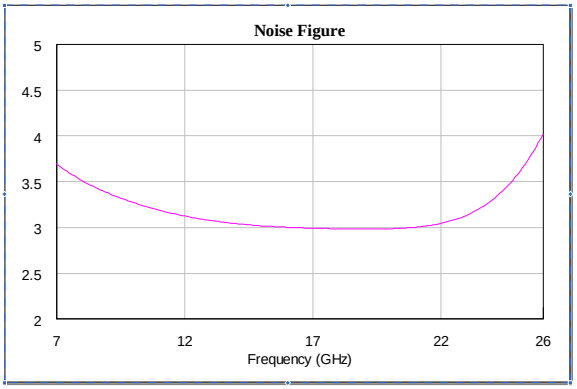
Gain Vs Input Power



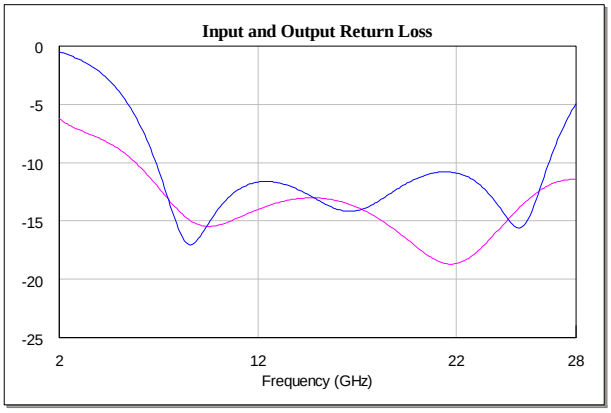
Pout Vs Pin



Noise Figure Vs Freq



Input /Output Return Loss Vs Freq



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