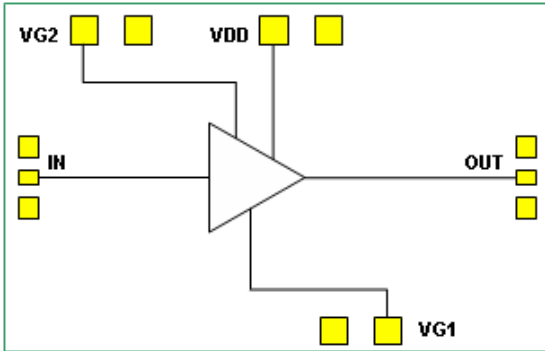


Functional Diagram



Features

- Broad Band MPA: 6 – 18 GHz
- Cascode Configuration
- Gain: 13 dB
- Output Power: 18 dBm*
- Size: 3.8mm X 3mm
- Current Consumption: 110 mA @ Vdd = +8.0V

General Description

The chip is a Cascode GaAs MMIC Distributed Medium Power Amplifier which covers the frequency range of 6 to 18 GHz. The chip utilizes the UMS GaAs PHEMT process offering 13 dB gain, 18 dBm* Output Power for 1dB Comp. Point with a bias supply of +8.0V @ 110 mA. The chip has two positive (Vdd, Vg2) and one negative (Vg1) biasing voltages.

All data are from on-wafer measurements.

The chip is designed to be mounted with In/Out bond wires, so the on-wafer measurements are not the best obtainable from the chip.

Electrical Specifications

<i>Parameter</i>	<i>Typ.</i>	<i>Unit</i>
Frequency Range	6 - 18	GHz
Gain	13	dB
Output Power for 1dB Comp. Point	18*	dBm
Input Match	-17	dB
Output Match	-10	dB
Noise Figure	4.5	dB
Supply Current (Idd) (Vdd = 8V)	110	mA

* Measurements still in progress.

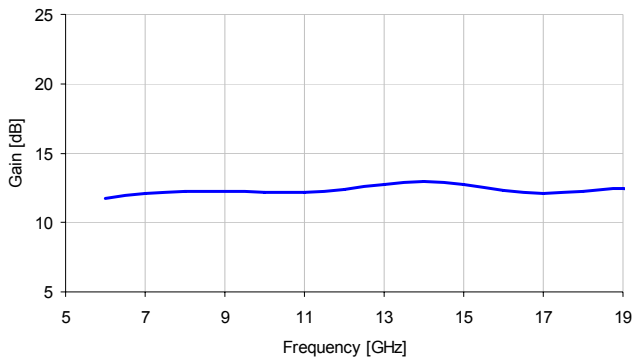


Advanced Technology Applications

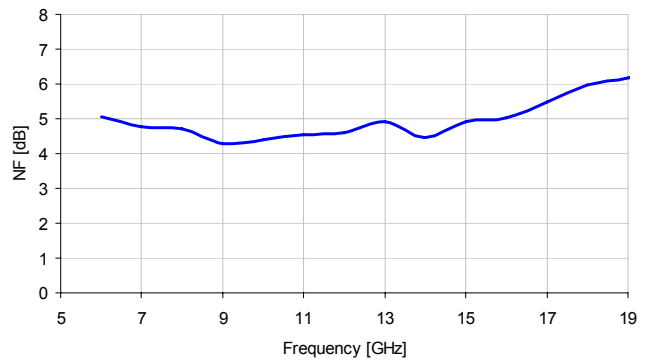
WAVMPW01

GaAs MMIC Broad Band Medium Power Amplifier, 6 – 18 GHz

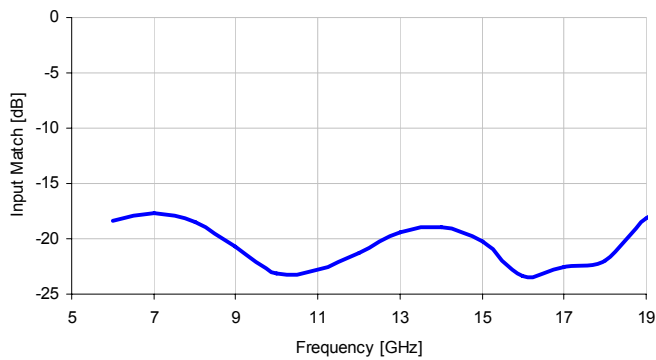
Gain



Noise Figure



Input Match



Output Match

