

## Features

- Frequency: 1GHz~20GHz
- Gain: 11dB
- Output P<sub>-1</sub>dB: 28.5dBm
- Die Size: 2.19 mm x1.32 mm x 0.1mm

## Typical Applications

- Microwave radio including point to point communication
- Telecommunication
- Weather radar
- Optical communication
- Test instrumentation
- SatCom
- VSAT
- Military and Aerospace

## General Description

SAC3923 is a GaAs MMIC driver amplifier which operates between 1GHz~20GHz. The amplifier provides 11dB of gain, 28.5dBm Output P<sub>-1</sub>dB.

This amplifier is the perfect alternative to higher cost hybrid amplifiers. And SAC3923 offers full passivation for increased reliability and moisture protection.

## Electrical Performance ( T<sub>A</sub>=25°C, V<sub>D</sub>=+10V, I<sub>D</sub>=320mA, Z<sub>0</sub>=50Ω )

Parameter	Min.	Typ.	Max.	Units
Frequency Range	1~20			GHz
Small Signal Gain	—	11	—	dB
Small Signal Gain Flatness	—	±1.2	—	dB
Input VSWR	—	1.6	—	:1
Output VSWR	—	1.3	—	:1
Output P <sub>-1</sub> dB	—	28.5	—	dBm
Supply Current(I <sub>D</sub> )	—	320	—	mA
Noise Figure	—	3	—	dB

## Absolute Maximum Ratings

Maximum Input Power	+20dBm	Operating Temperature	-55°C~+85°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C
V <sub>g</sub>	-9V		

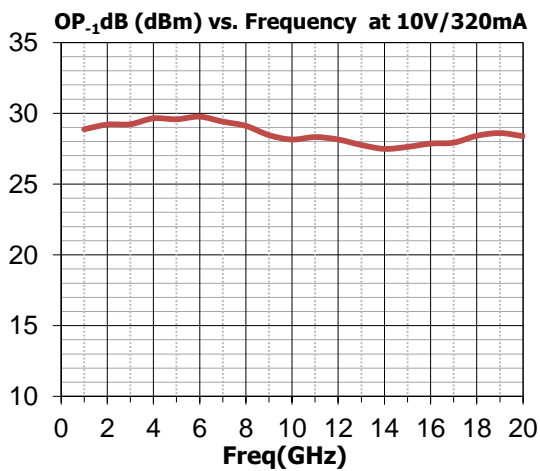
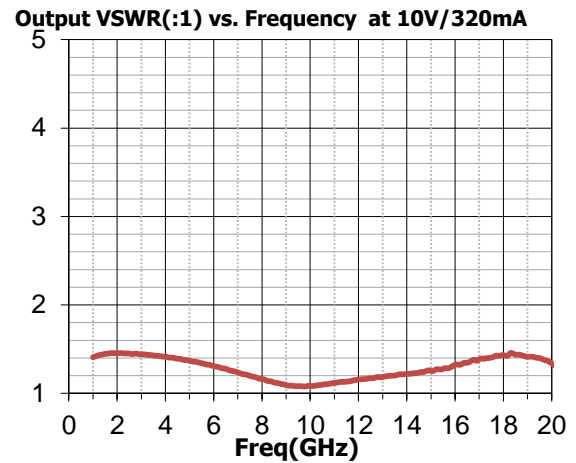
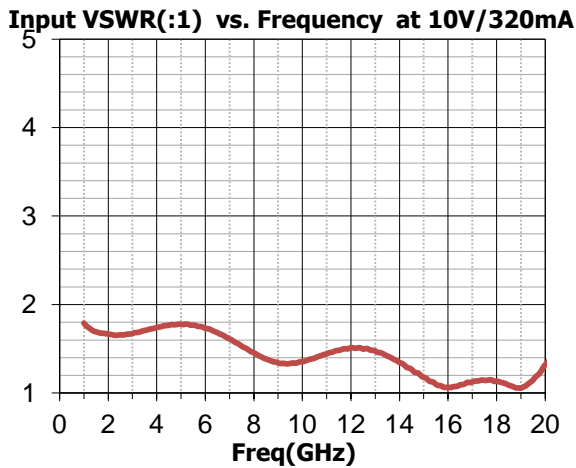
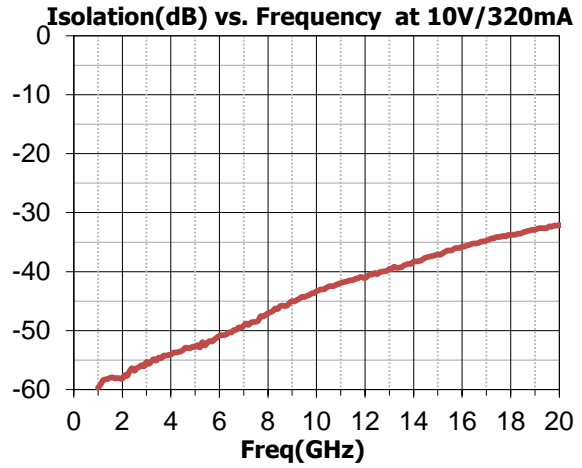
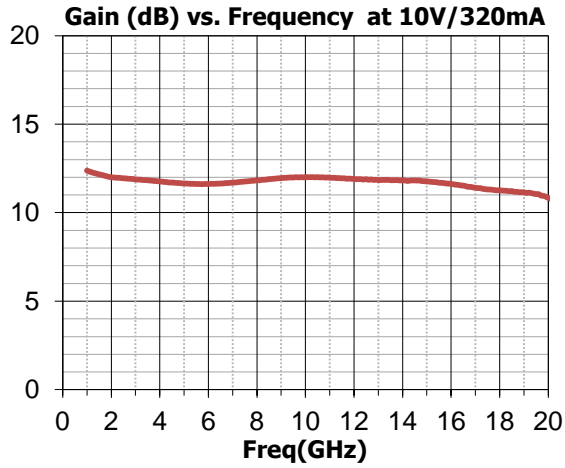
# SAC3923



GaAs MMIC Driver Amplifier  
1GHz~20GHz

Rev 1.3

## Typical Performance Curve



### SuperApex, LLC

1580 S. Milwaukee Ave. Suite 405, Libertyville, IL 60048, USA  
Tel: 1-847-505-8319, 1-847-573-9866  
E-mail: sales@superapexco.com  
Website: www.superapexco.com

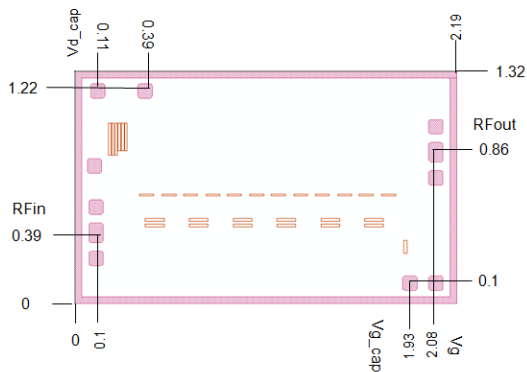
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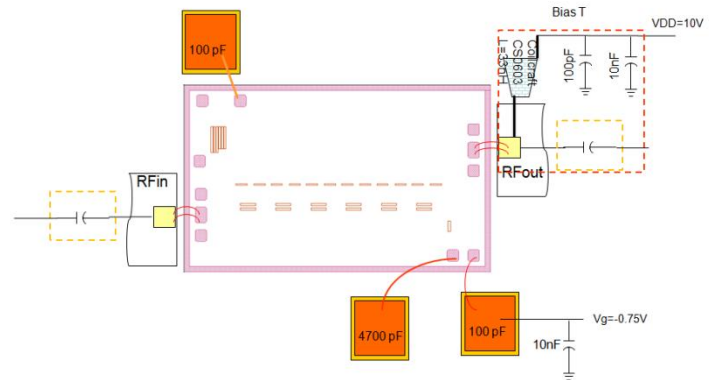
GaAs MMIC Driver Amplifier  
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## Die Outline (All dimensions in mm)



## Assembly Diagram



### Notes

1. RF connections should be made as short as possible to reduce the inductive effect of the bond wire.
2. The backside of SAC3923 is RF grounded. Die attach should be accomplished with electrically and thermally conductive epoxy only.

### Attention:



**Electrostatic discharge !**

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