

SAC3064

GaAs MMIC Distributed Amplifier
DC~30GHz

Rev 2.1

Features

- Frequency: DC~30GHz
- Gain: 16dB
- Noise Figure:4dB
- Output P_{-1dB}: 24dBm
- Die Size: 2.93mmx1.22x0.1mm

Typical Applications

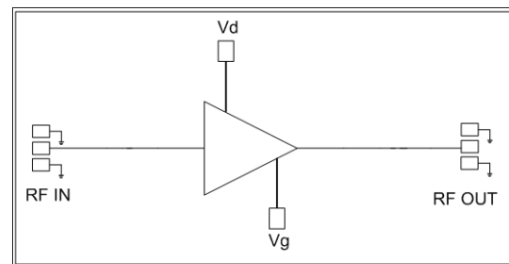
- Radar and ECM
- RF/ Microwave radio
- Test and Measurement
- Fiber Optics

General Description

SAC3064 is a GaAs MMIC distributed amplifiers die which operates between DC~30GHz. The amplifier can provide 16dB gain, 24dBm Output P_{-1dB} from a 220mA supply current.

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

Functional Diagram



Electrical Performance (T_A=25°C, V_d=+8V, I_D=220mA, Z₀=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	DC~30			GHz
Gain	—	16	—	dB
Gain Flatness	—	±2.0	—	dB
Input Return Loss	—	-15	—	dB
Output Return Loss	—	-15	—	dB
Noise Figure	—	4	—	dB
Output P _{-1dB}	—	24	—	dBm
Supply Current(I _D)	—	220	—	mA

Adjust V_g=-1~0V to achieve I_D = 220 mA typical

Absolute Maximum Ratings

Maximum Input Power	+18dBm	Operating Temperature	-40°C~+85°C
Channel Temperature	+150°C	Storage Temperature	-55°C~+125°C

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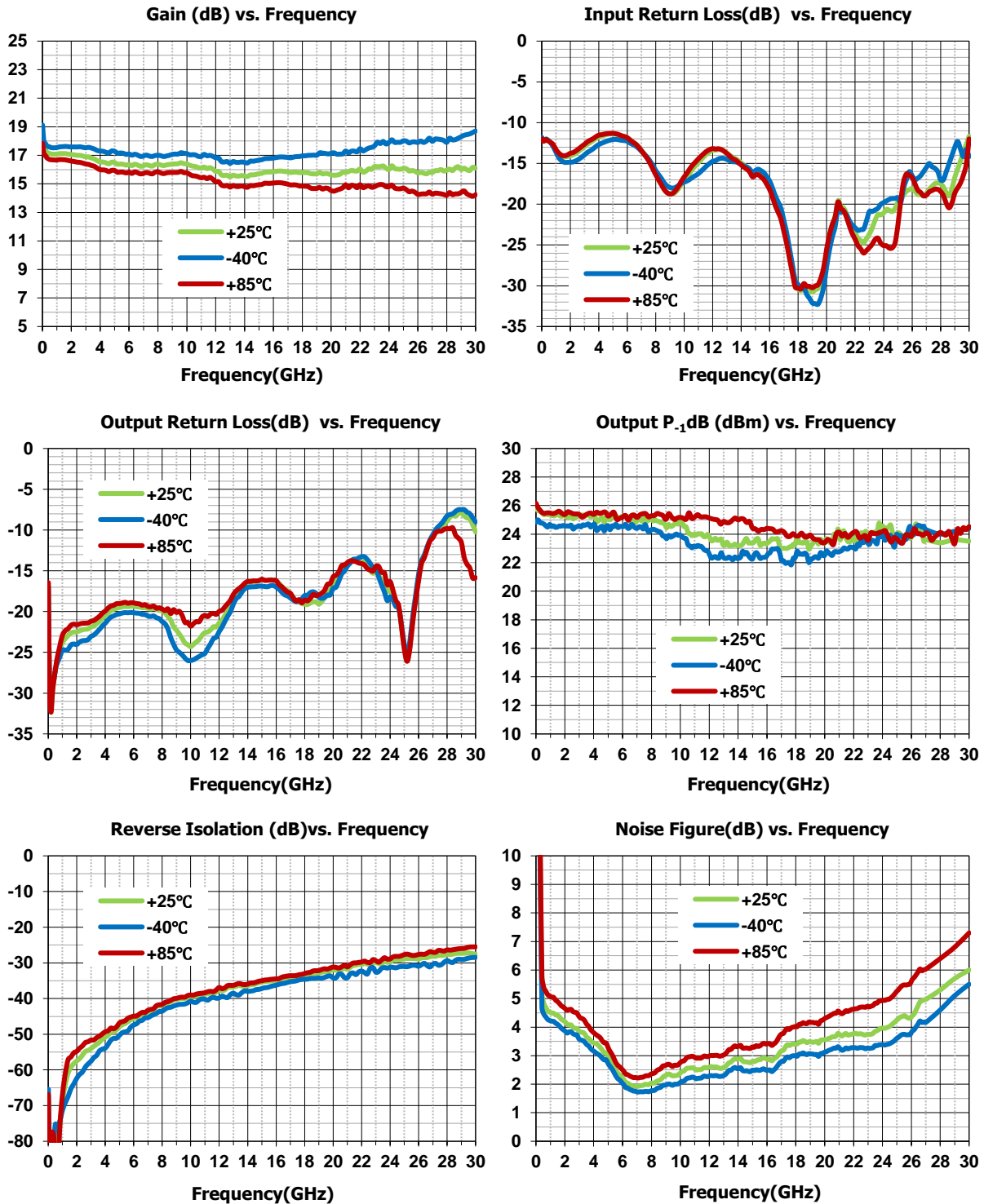
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Typical Performance Curve



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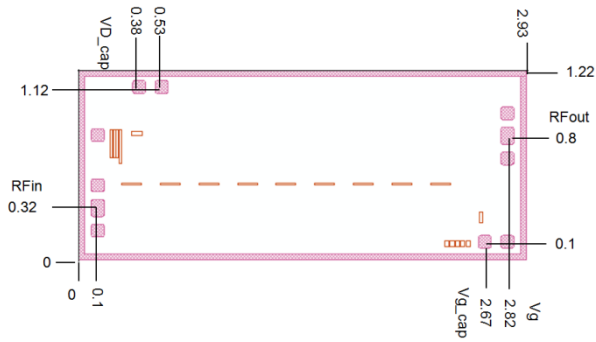
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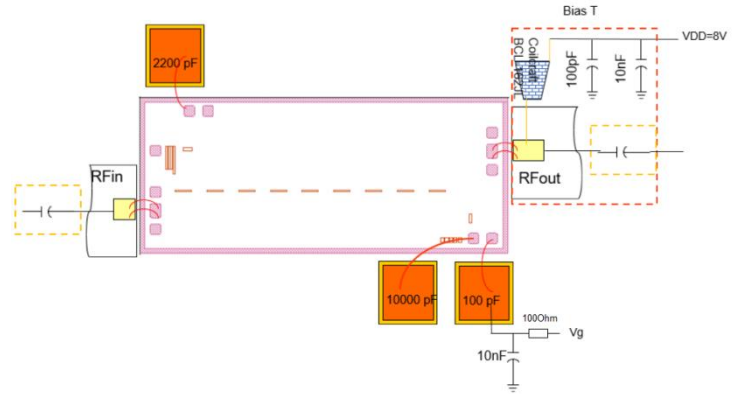
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Outline (All dimensions in mm)



Assembly Diagram



Attention:

GaAs MMIC devices are susceptible to damage from Electrostatic Discharge. Proper precautions should be observed during handling, assembly and test.