

SAC3064Q5



GaAs MMIC Distributed Amplifier(Package)
DC~30GHz

Rev 1.3

Features

- Frequency: DC~30GHz
- Gain: 16dB
- Noise Figure:4dB
- Output P_{-1dB}: 24dBm
- Size: 5mmx5mmx1.2mm

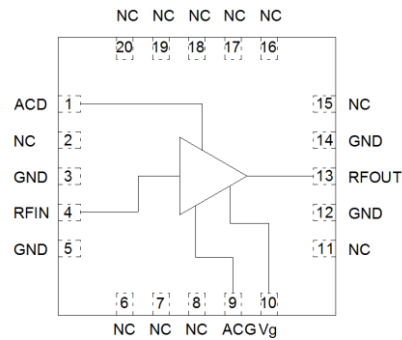
Typical Applications

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

General Description

SAC3064Q5 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.

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	—	±1.5	—	dB
Reverse Isolation	—	-40	—	dB
Input Return Loss	—	-13	—	dB
Output Return Loss	—	-15	—	dB
Output P _{-1dB}	—	23.5	—	dBm
Noise Figure	—	4	—	dB
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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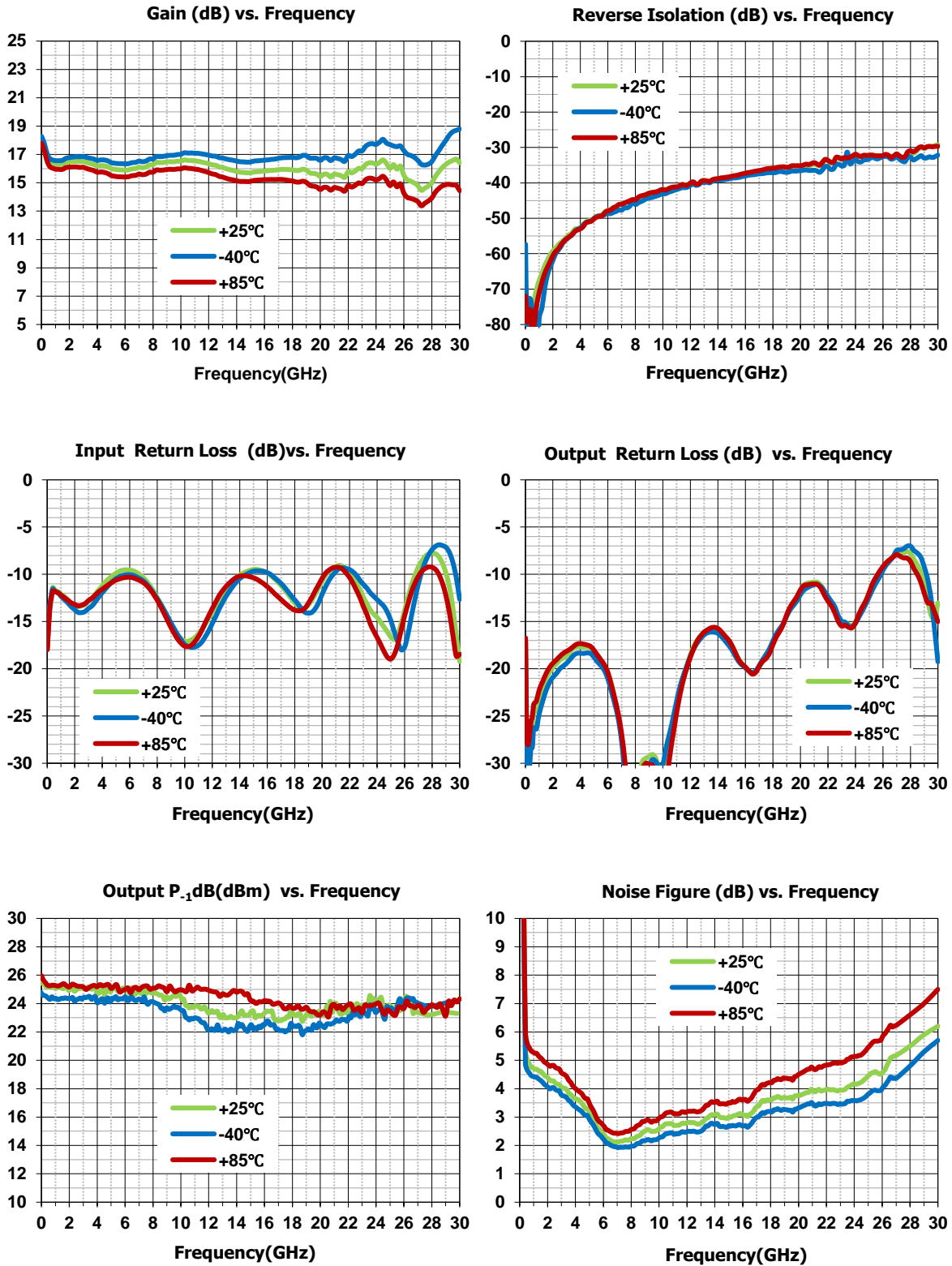
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Typical Performance Curve



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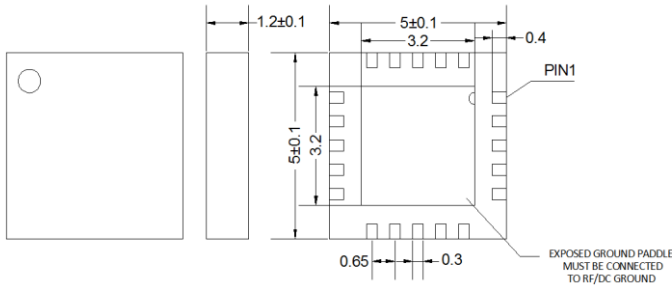
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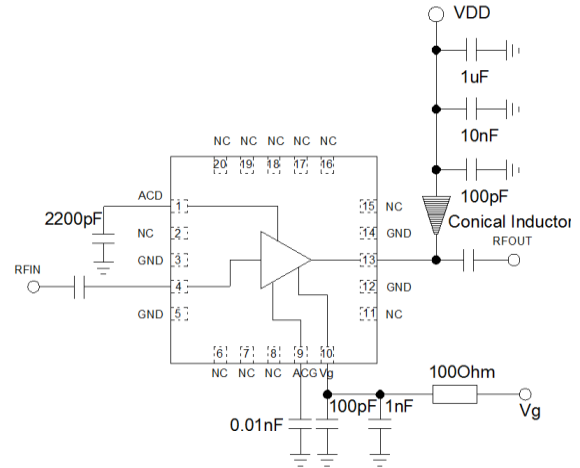
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Outline Drawing (All dimensions in mm)



Assembly Diagram



Attention:

1. The moisture resistant grade of products is 2A, the storage environment $\leq 30^{\circ} \text{C}/60\% \text{RH}$, The surrounding workshop Life is 4 weeks.
2. After un-packing, It is necessary to bake the parts for 6 hours in 125 ± 5 degree environment before soldering.