

Features

- Frequency: 2GHz~10GHz
- Gain: 18dB
- Output P_{-1dB}: 19dBm
- Die Size: 1.06mm×1.05mm×0.1mm

Typical Applications

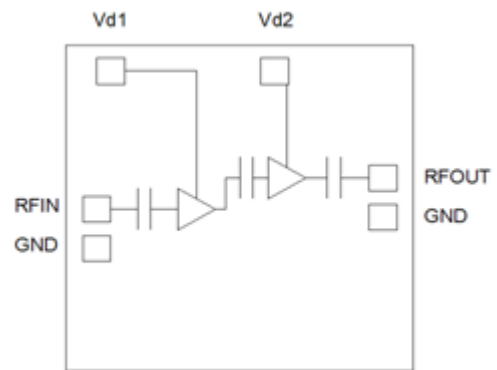
- Microwave radio including point to point communication
- Telecommunication
- Weather radar
- Optical communication
- Test instrumentation
- SatCom
- VSAT
- Military and Aerospace

General Description

SAC3918 is a GaAs MMIC driver amplifier which operates between 2GHz~10GHz. The amplifier provides 18dB of gain ,19dBm Output P_{-1dB} while requiring 80 mA from a +5V supply voltage.

SAC3918 offers full passivation for increased reliability and moisture protection.

Functional Diagram



Electrical Performance (T_A=25°C, V_{D1}、V_{D2}=+5V, I_D=80mA, Z₀=50Ω)

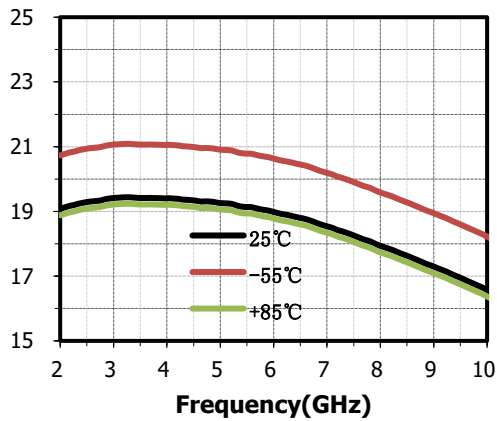
Parameter	Min.	Typ.	Max.	Units
Frequency Range	2~10			GHz
Small Signal Gain	—	18	—	dB
Reverse Isolation	—	±1.5	—	dB
Input Return Loss	—	-16	—	dB
Output Return Loss	—	-20	—	dB
Output P _{-1dB}	—	19	—	dBm
Supply Current(I _D)	—	80	—	mA

Absolute Maximum Ratings

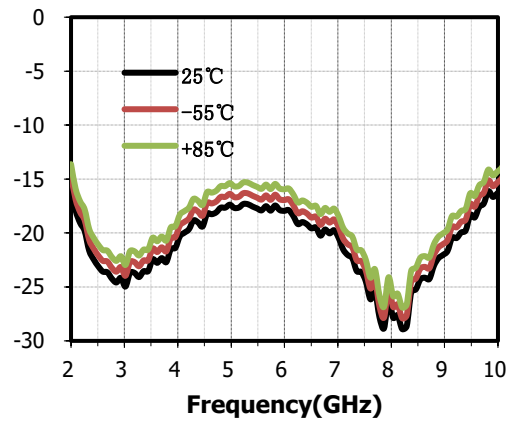
Maximum Input Power	+17dBm	Operating Temperature	-55°C~+85°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C
Maximum V _D	+6.3V		

Typical Performance Curve

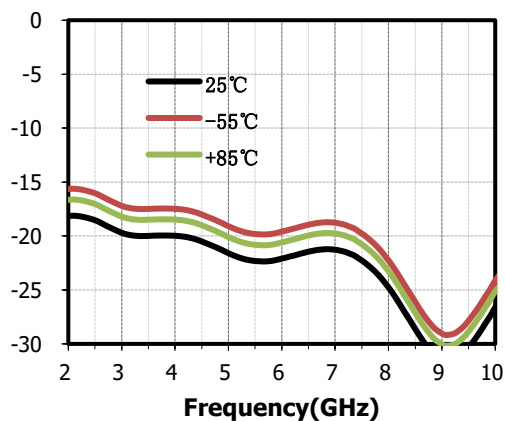
Small Signal Gain(dB) vs.Temperature



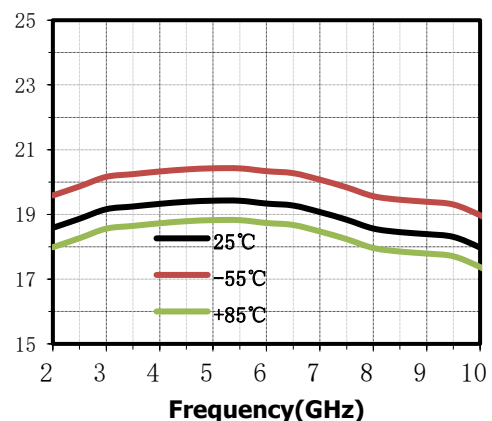
Input Return Loss(dB) vs.Temperature



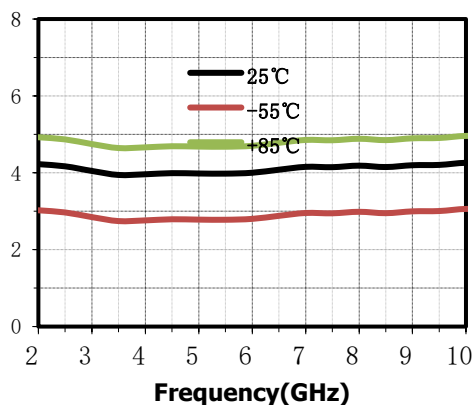
Output Return Loss(dB) vs.Temperature



OP-1dB(dBm) vs.Temperature



NF(dB) vs.Temperature

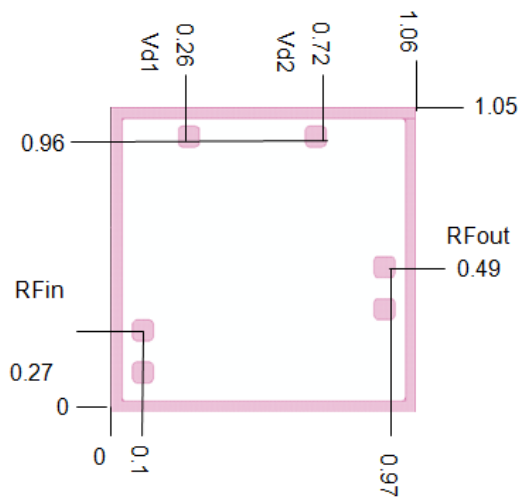


SAC3918

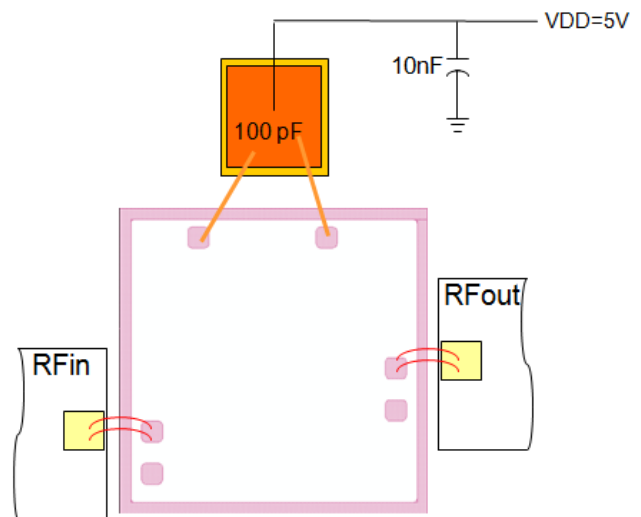
GaAs MMIC Driver Amplifier
2GHz~10GHz

Rev 2.1

Die Outline
(All dimensions in mm)



Assembly Diagram



Attention:



Electrostatic discharge!

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