

Features

- Frequency: 2~4GHz
- Gain: 30dB
- OP_{-1dB}: 10dBm
- Noise Figure: 0.6dB Typ. 0.8dB Max.
- Supply Current: 40mA
- Size: 17.8mm×20mm×8.35mm

Typical Applications

- Microwave radio
- Telecommunication
- Deep Space Communication
- Test instrumentation
- Military

General Description

SAC1149A is a low noise amplifier module with a typical small signal gain of 30dB and a nominal OP_{-1dB} of +10dBm across the frequency range of 2 to 4GHz.

Electrical Performance

T_A=25°C, I_D=40mA, Z₀=50Ω

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2~4			GHz
Gain	28	30	31.5	dB
Gain Flatness	-	±1	-	dB
Noise Figure	-	0.6	0.8	dB
Output Power for 1 dB Compression (OP _{-1dB})	-	10	-	dBm
Output IP ₃	-	23	-	dBm
Input VSWR	-	1.5	1.8	:1
Output VSWR	-	1.5	1.8	:1
Supply Voltage	4.5	5	5.5	V
Supply Current	-	40	-	mA

Mechanical Specifications

Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin/Case ground
Case Material	7050 Aluminum alloy
Weight	25g

Absolute Maximum Ratings

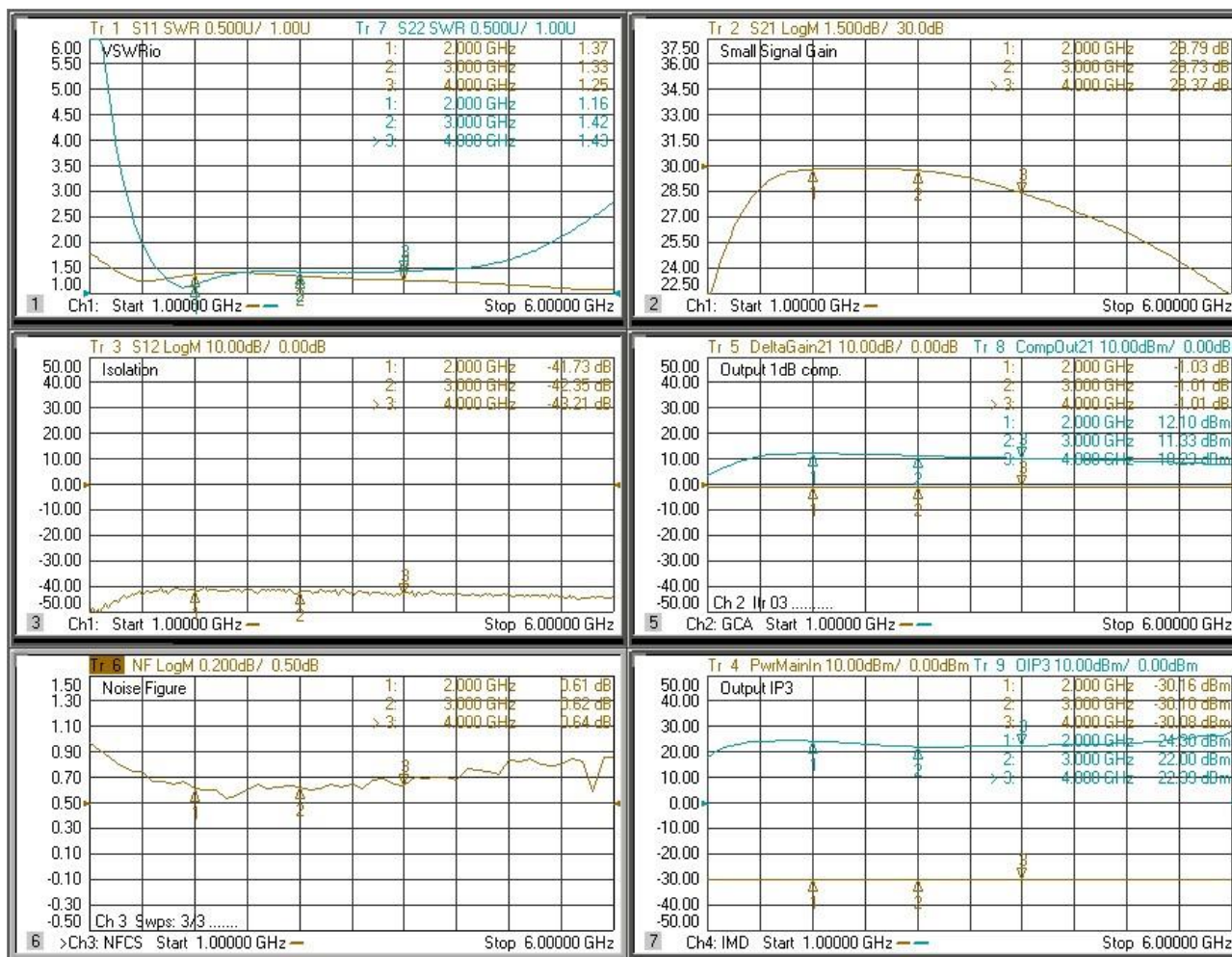
Maximum Input Power	+13dBm	Operating Temperature	-55°C~+85°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C

SuperApex, LLC

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Typical Performance Curve

TA=+25°C



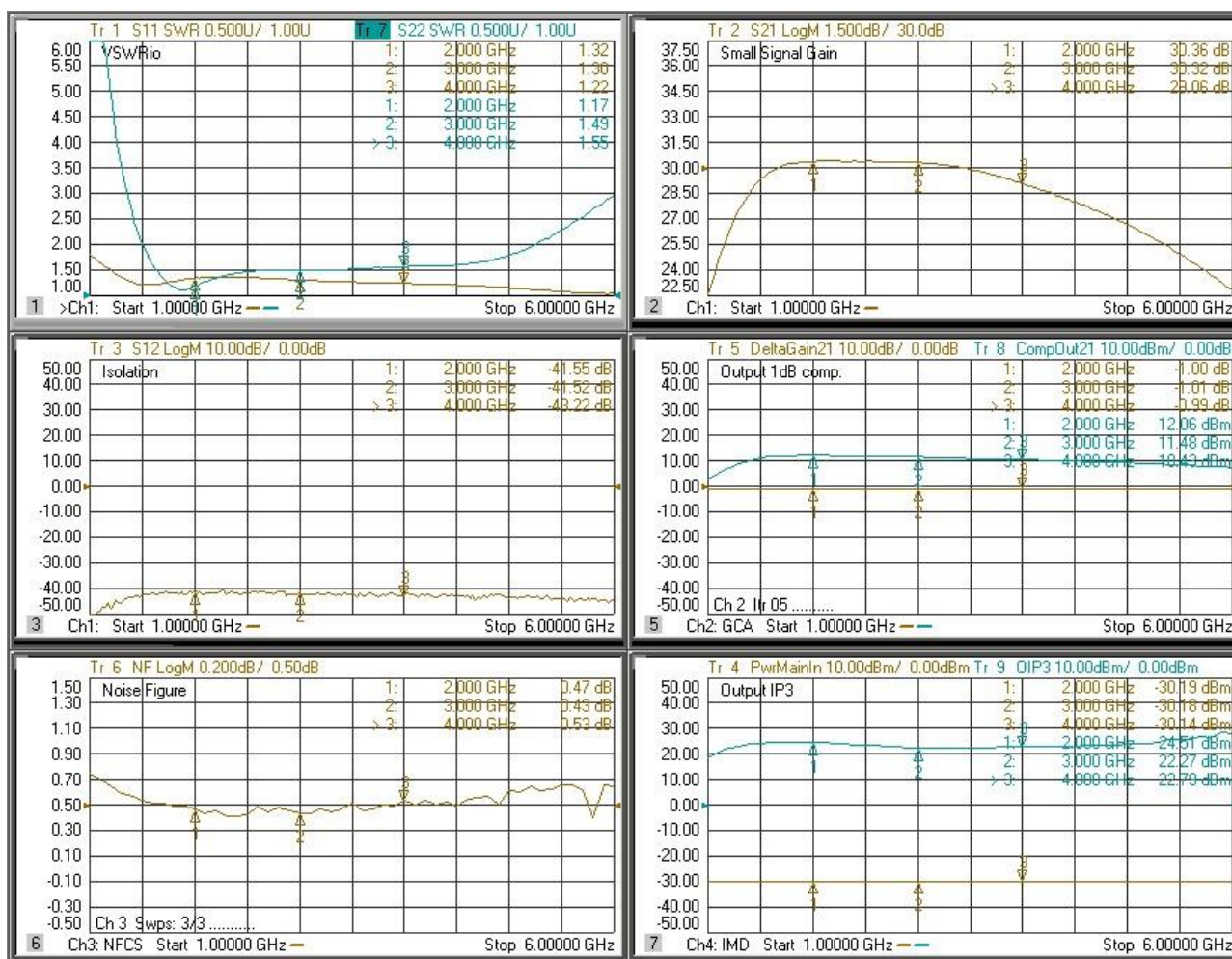
SAC1149A



Wide-band Low Noise Amplifier Module 2~4GHz NF=0.6dB

Rev 1.0

T_A = -40°C



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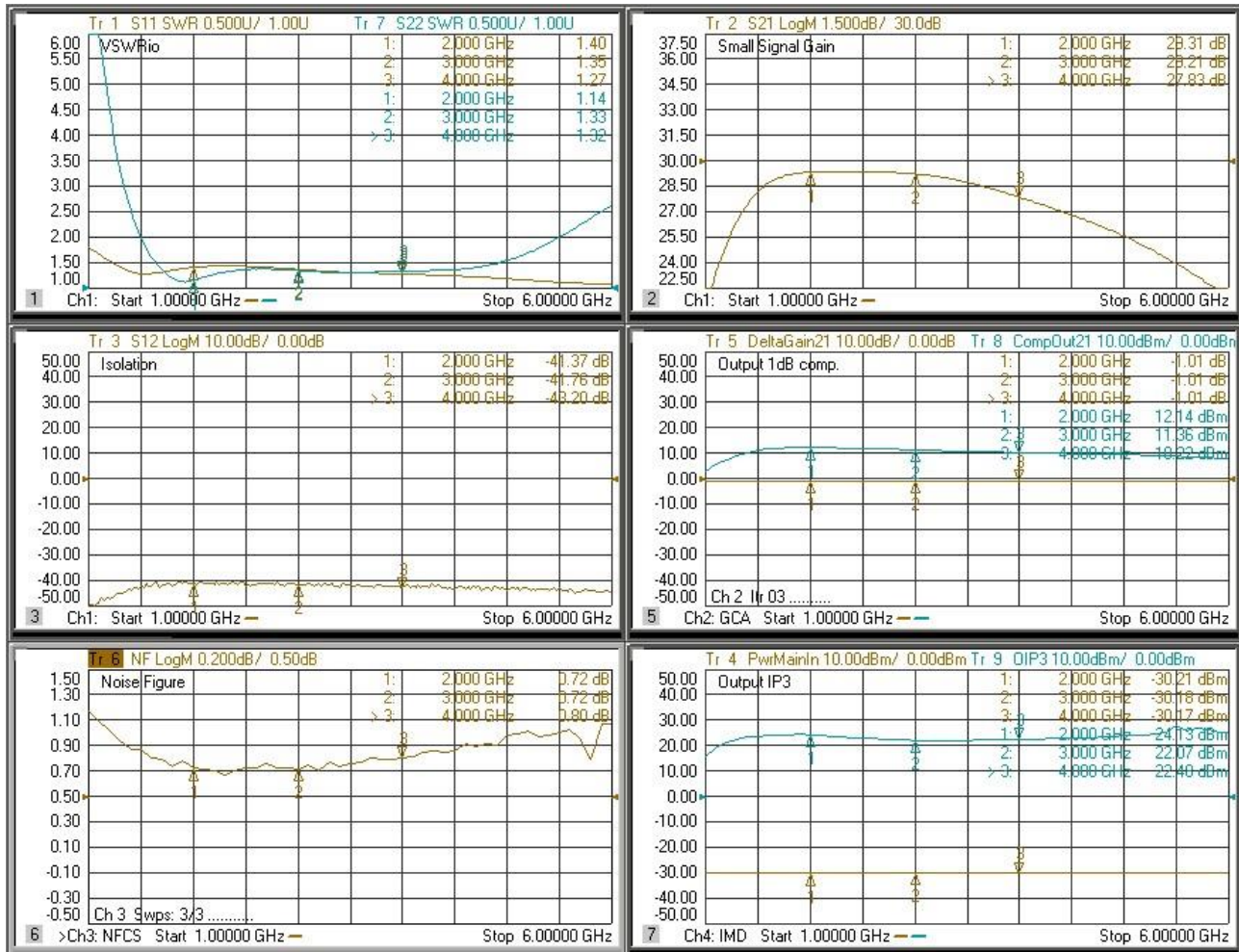
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Wide-band Low Noise Amplifier Module 2~4GHz NF=0.6dB

Rev 1.0

TA=70°C



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SAC1149A

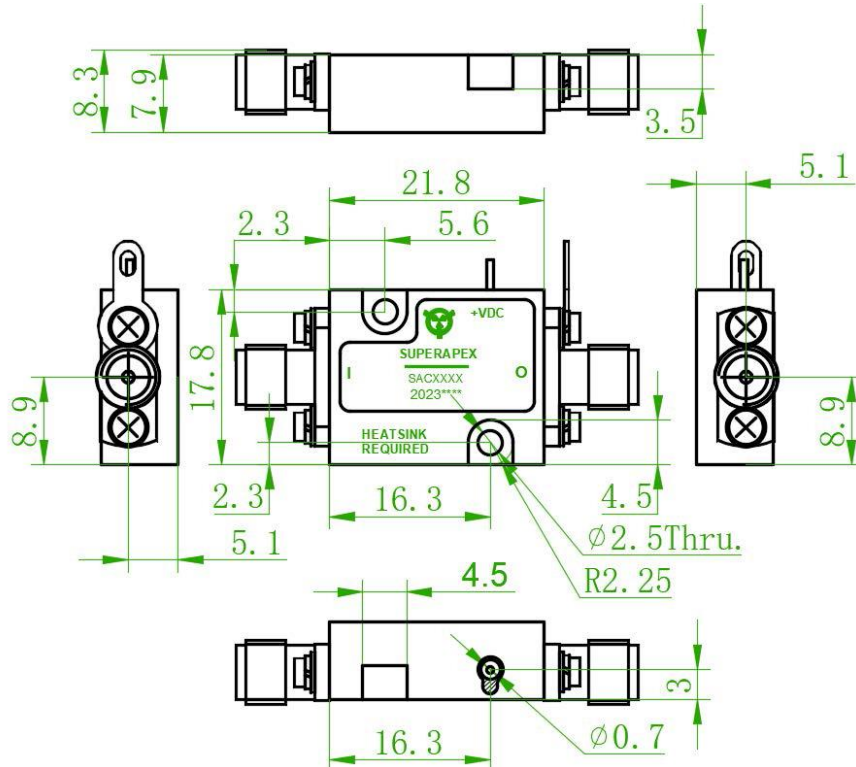


Wide-band Low Noise Amplifier Module
2~4GHz NF=0.6dB

Rev 1.0

Mechanical Outline

All dimensions are in millimeters



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