

Features

- Frequency: 2~4GHz
- Gain: 55dB
- OP_{-1dB}: 10dBm
- Noise Temperature: 45° K
- Supply Current: 70mA
- Hermetic Laser Sealing
- Size: 21.8mm×17.8×8.35mm

Typical Applications

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

General Description

SAC1159A-R is a low noise amplifier module with a typical small signal gain of 55dB and a nominal OP_{-1dB} of +10dBm across the frequency range of 2 to 4GHz

SAC1159A-R is integrated with SUPERAPEX proprietary low noise GaAs MMIC amplifier chip, high frequency micro electronic assembly techniques, and high reliability design to realize optimum low noise figure, wideband operation.

Electrical Performance (T_A=25°C, I_D=70mA, Z_O=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2~4			GHz
Gain	50	55	-	dB
Gain Flatness	-	±1.0	±1.5	dB
Noise Temperature	-	45	50	°K
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	7	-	15	V
Supply Current	-	70	-	mA

Mechanical Specifications

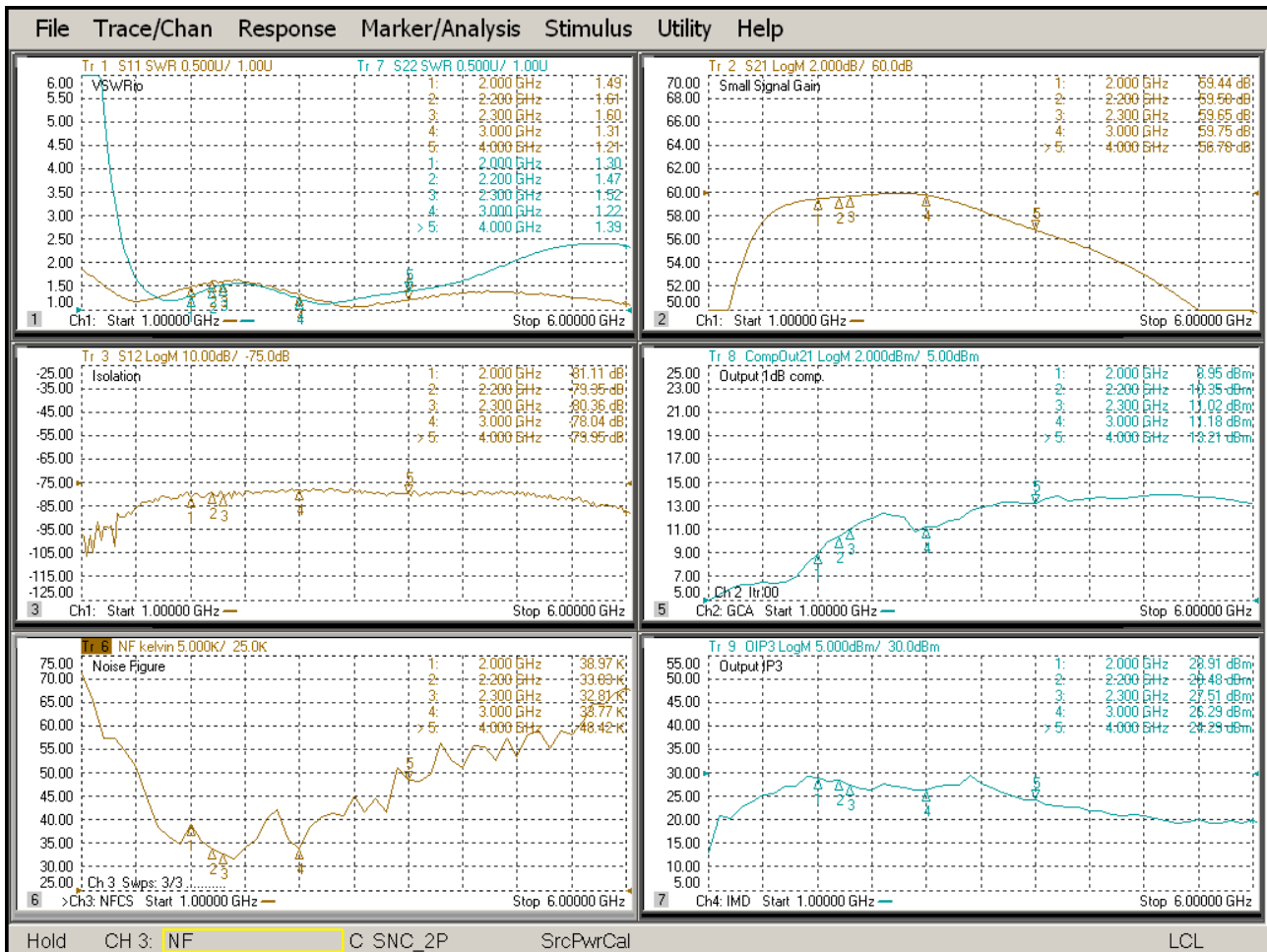
Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin/Case ground
Case Material	7050 Aluminum alloy
Weight	25g

Absolute Maximum Ratings

Maximum Input Power	+13dBm	Operating Temperature	-40°C~+70°C
Channel Temperature	+150°C	Storage Temperature	-65°C~+150°C

Typical Performance Curve

T_A=25°C,+VDC=12v, ID=70mA, Noise measurement by cold source method



SAC1159A-R

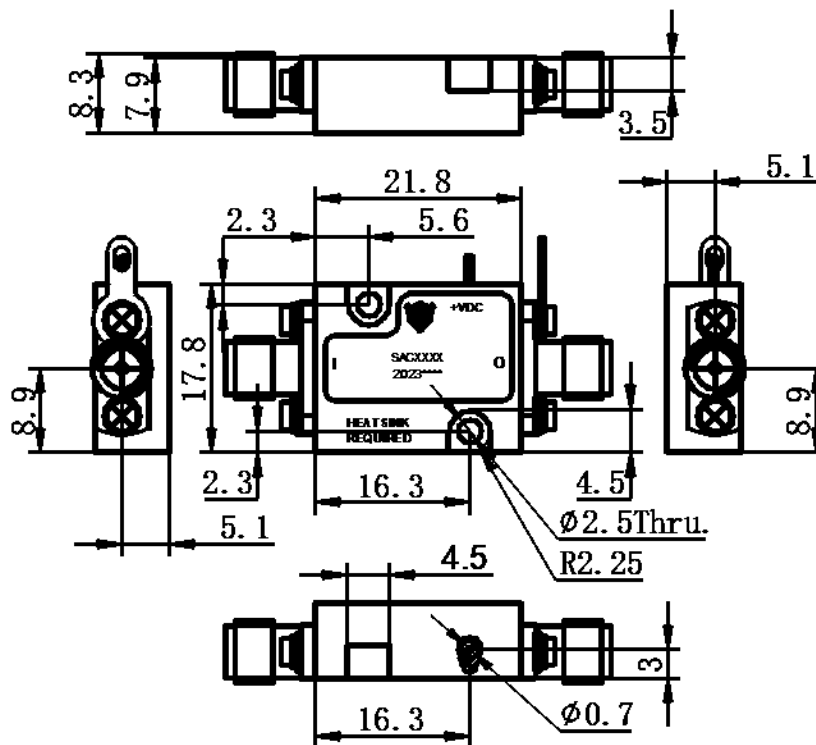


S-band Low Noise Amplifier Module
2~4GHz NF 45° K

Rev 1.0

Mechanical Outline

All dimensions are in millimeters



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