

SAC1156

Wide-band Low Noise Amplifier Module 2~8.5GHz NF 1dB

Rev 1.1

Features

- Frequency: 2~8.5GHz
- Gain: 27dB
- OP_{-1dB}: 10dBm
- Noise Figure: 1dB
- Supply Current: 40mA
- Hermetic Laser Sealing
- Module Size: 17.8mm×20mm×8.35mm

Typical Applications

- Microwave radio
- Telecommunication
- Test instrumentation

General Description

SAC1156 is a low noise amplifier module with a typical small signal gain of 27dB and a nominal OP_{-1dB} of +10dBm across the frequency range of 2 to 8.5GHz.

SAC1156 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.

Picture



Electrical Performance (T_A=25°C, I_D=40mA, Z₀=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2~8.5			GHz
Gain	22	27	–	dB
Gain Flatness	–	±1.5	±2.5	dB
Noise Figure	–	1.0	1.35	dB
Output Power for 1 dB Compression (OP _{-1dB})	8	10	–	dBm
Output IP ₃	18	20	–	dBm
Input VSWR	–	1.6	2.2	:1
Output VSWR	–	1.6	2.2	:1
Supply Voltage	4.75	5	6	V
Supply Current	–	40	50	mA

Mechanical Specifications

Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin/Case ground
Case Material	4047 Aluminum alloy
Weight	11g

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

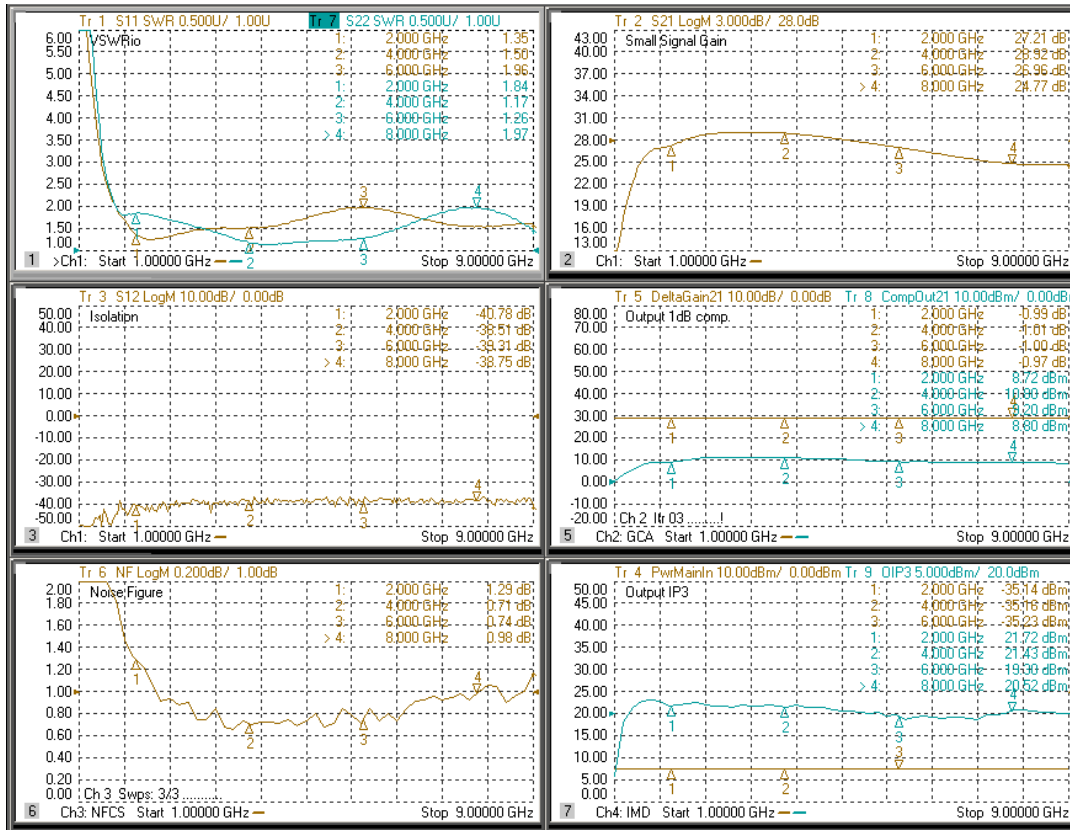
Absolute Maximum Ratings

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

Typical Performance Curve

+V_{DC}=5V, I_D=40mA, Noise measurement by cold source method

T_A=25°C



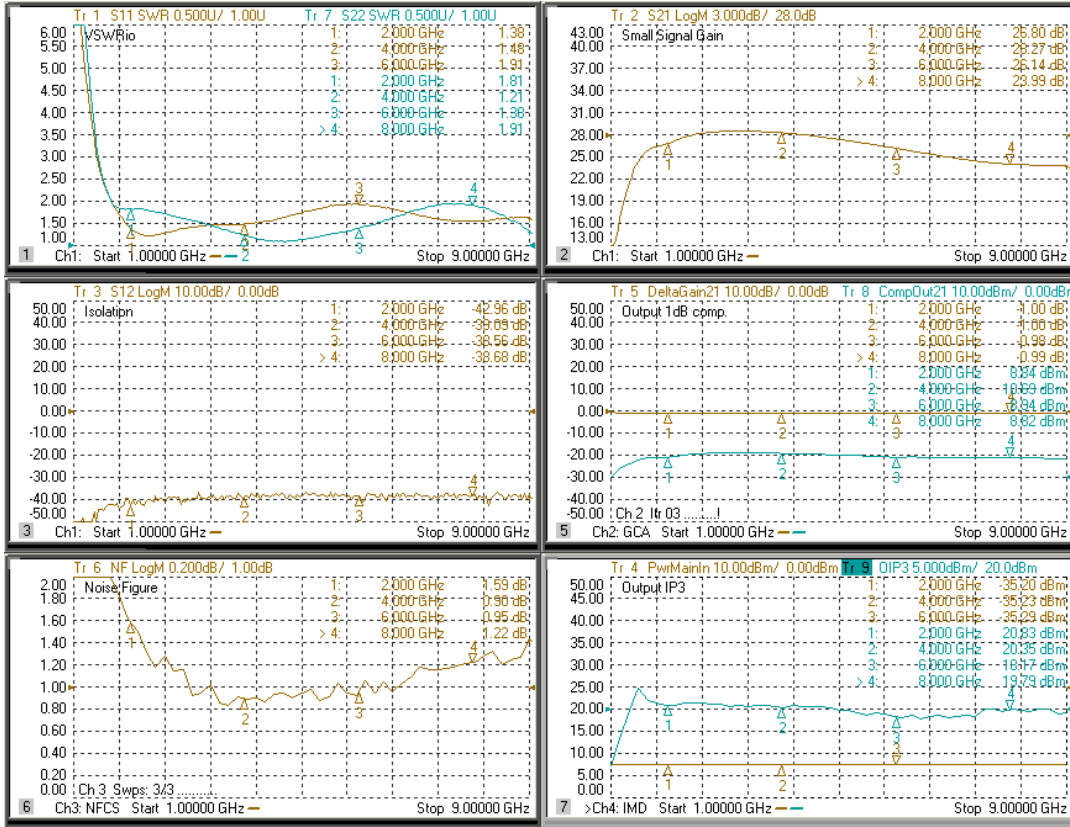
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Wide-band Low Noise Amplifier Module
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T_A=+70°C



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