

Features

- Frequency: 0.8~1.6GHz
- Gain: 60dB
- OP₋₁dB: 12dBm
- Noise Temperature: 40° K
- Supply Current: 100mA
- Hermetic Laser Sealing
- Size: 17.8mm×20mm×8.35mm

Typical Applications

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

General Description

SAC1163-R is a low noise amplifier module with a typical small signal gain of 60dB and a nominal OP₋₁dB of +12dBm across the frequency range of 0.8 to 1.6GHz.

SAC1163-R is integrated with SUPERAPEX proprietary low noise GaAs MMIC amplifier chip, high frequency microelectronic assembly techniques, and high reliability design to realize optimum low noise figure, wideband operation.

Picture



Electrical Performance (T_A=25°C, I_D=100mA, Z₀=50Ω)

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.8 ~ 1.6			GHz
Gain	58	60	-	dB
Gain Flatness	-	±1.0	±1.5	dB
Noise Temperature	-	40	45	K
Output Power for 1 dB Compression (OP ₋₁ dB)	-	12	-	dBm
Output IP ₃	-	23	-	dBm
Input VSWR	-	1.6	1.8	:1
Output VSWR	-	1.6	1.8	:1
Supply Voltage	7	-	15	V
Supply Current	-	100	-	mA

Mechanical Specifications

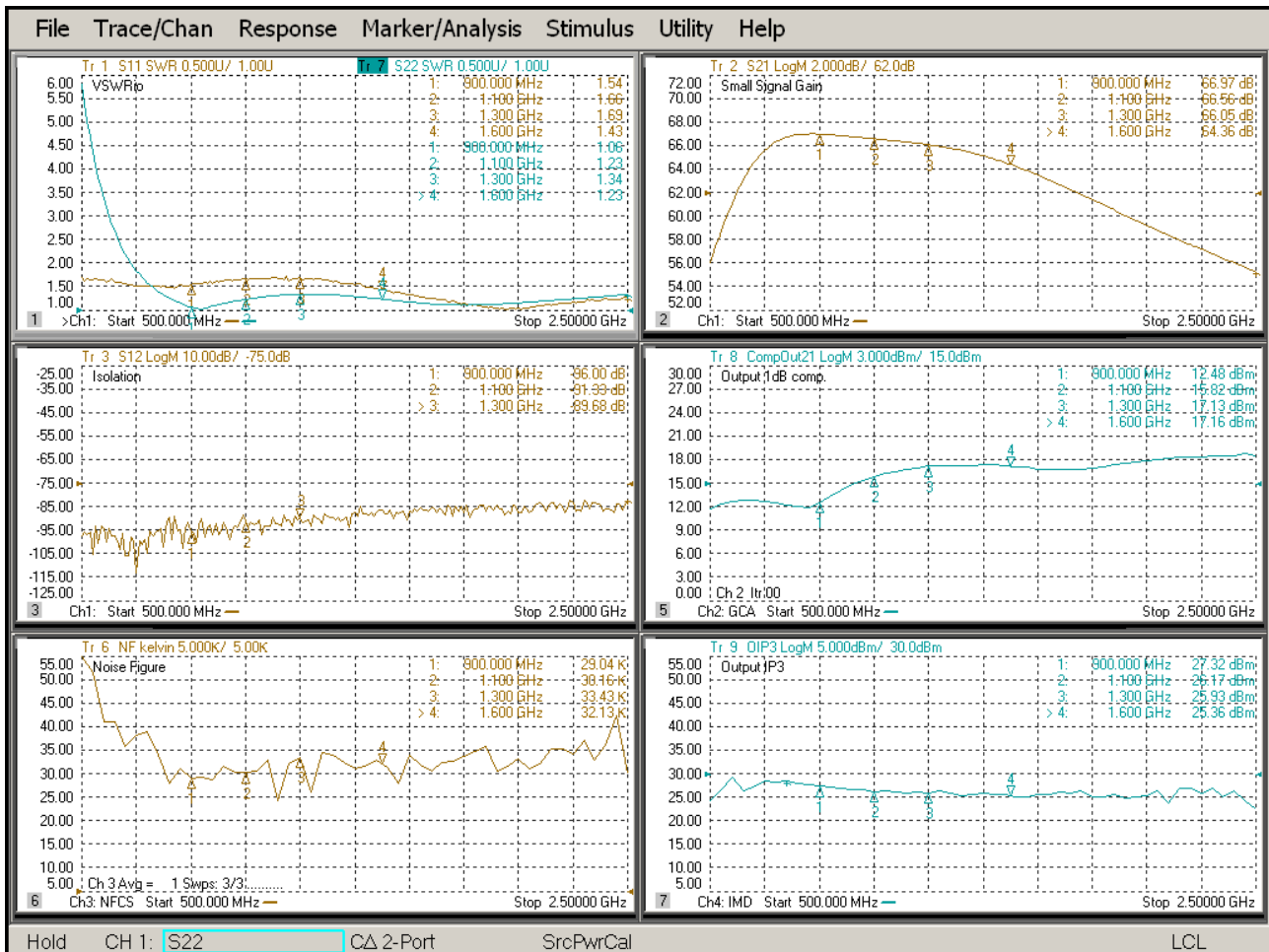
Parameter	
Input/Output	SMA(F) Field-replaceable
Bias	Pin/Case ground
Case Material	4047 Aluminum alloy
Weight	11g

Absolute Maximum Ratings

Maximum Input Power	+14dBm	Operating Temperature	-40°C ~ +70°C
Channel Temperature	+150°C	Storage Temperature	-65°C ~ +150°C

Typical Performance Curve

$T_A=25^\circ\text{C}$, $+V_{DC}=12\text{V}$, $I_D=100\text{mA}$, Noise measurement by cold source method



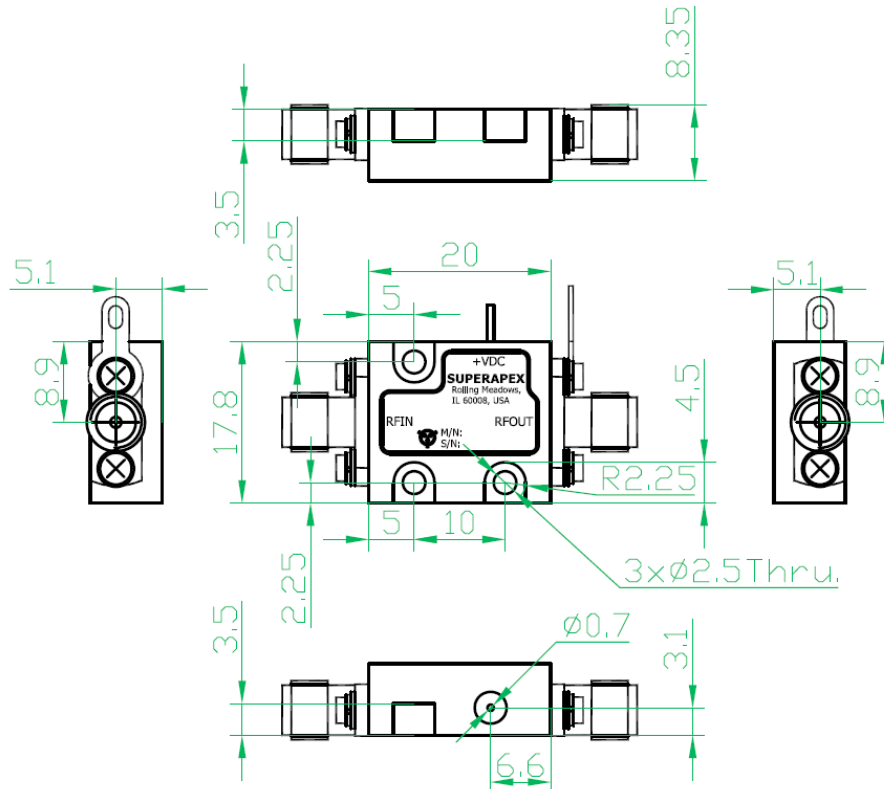
SAC1163-R

L-band Low Noise Amplifier Module
0.8~1.6GHz NF 40° K

Rev 1.1

Mechanical Outline

All dimensions are in millimeters



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